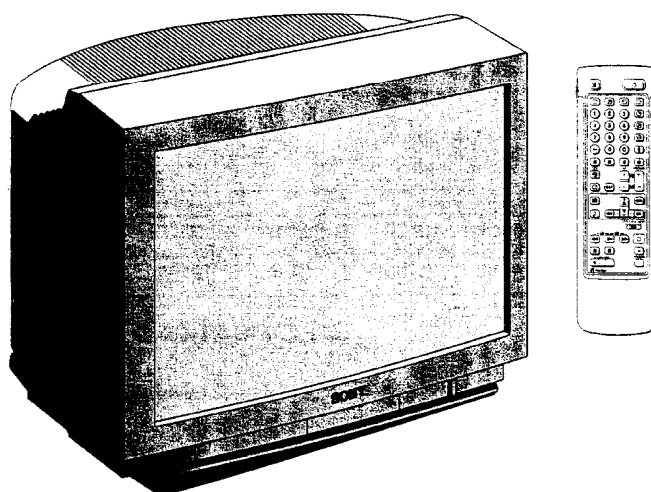


SERVICE MANUAL

AE-2B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-A2541A	RM-831	Italian	SCC-G59G-A	KV-A2543E	RM-831	Spanish	SCC-G56G-A
KV-A2541B	RM-831	French	SCC-G57G-A	KV-A2541K	RM-831	OIRT	SCC-G73G-A
KV-A2541D	RM-831	AEP	SCC-G45H-A	KV-A2542U	RM-831	UK	SCC-G55E-A



TRINITRON® COLOR TV
SONY®

ITEM	MODEL	Television System	Stereo System	Channel Coverage	Color System
Italian	B/G/H, D/K		GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, D/K L, I		GERMAN Stereo French Nicam	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
AEP	B/G/H, D/K		GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K		GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K		GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
UK	I		NICAM Stereo	UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	Italian	French	AEP	Spanish	OIRT	UK
Power Consumption	107W	124W	124Wh	124Wh	124Wh	160W

SPECIFICATIONS

Picture Tube Super Trinitron
Approx. 63 cm (25 inches)
(Approx. 59 cm picture measured diagonally)
110° -deflection

Input/Output Terminals

[REAR]

☐-1 21-pin Euro connector (CENELEC standard)

- inputs for audio and video signals
- inputs for RGB
- outputs of TV video and audio signals

☐-2/☐-3 2 21-pin Euro connector

- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals (selectable)
- Ext Left/Right speaker terminals.
- Center and Surround speaker terminals.

[FRONT]

- ☐-3 Video input - phono jack
- ☐- Audio inputs - phono jacks
- ☐-3 S video input 4-pin DIN
- ☐ Headphone jacks : stereo minijack

Sound output 3 x 15W RMS (LRC)
3 x 30W Music Power (LRC)
2 x 4W RMS (S)
2 x 7.5W Music Power (S)
Power requirements 220 - 240V
Dimensions Approx. 678x502x512 mm
Weight Approx. 40kg
Supplied accessories RM-831 Remote Commander (1)
IEC designation R6 battery (1)
Center Speaker (1),
Center Speaker Lead (1)
Surround Speakers (2),
Surround Speaker Lead (2)

Other features

NICAM, FASTEXT,
GRAPHIC EQUALISER,
DOLBY PRO LOGIC


[RM-831]

Remote control system Infrared control
Power requirements 1.5V dc
1 battery IEC designation R6 (size AA)
Dimensions Approx. 65x225x21 mm (w/h/d)
Weight Approx. 157g (Not including batteries)

Design and specifications are subject to change without notice.

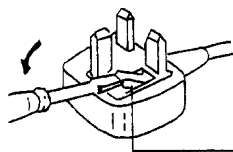
Model name	KV-A2541A	KV-A2541B	KV-A2541D	KV-A2543E	KV-A2541K	KV-A2542U
Item						
Pal comb	OFF	OFF	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF	OFF	OFF
RGB Priority	ON	ON	OFF	OFF	OFF	OFF
Graphic Equaliser	ON	ON	ON	ON	ON	ON
Dolby	ON	ON	ON	ON	ON	ON
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON	ON
Just 60 Prog.	OFF	OFF	OFF	OFF	OFF	ON
Dyn. Convergence	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	ON	OFF
Norm I	OFF	ON	OFF	OFF	OFF	ON
Norm D/K	ON	ON	ON	ON	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF
Bass Offset	OFF	OFF	OFF	OFF	OFF	OFF
Treble Offset	OFF	OFF	OFF	OFF	OFF	OFF
NICAM (L)	OFF	ON	OFF	OFF	OFF	OFF
Language Preset	Italiano	Francais	Deutsch	None	OIRT	English

WARNING (KV-A2542U only)

The flexible mains lead is supplied connected to a B.S. 1363 fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by ASTA to BS 1362, ie one that carries the  mark.

IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

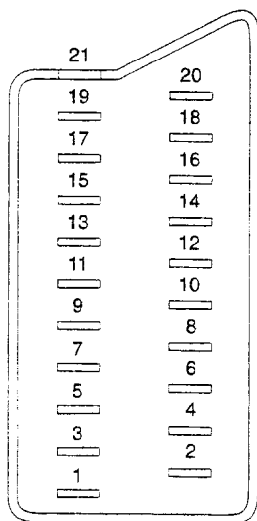
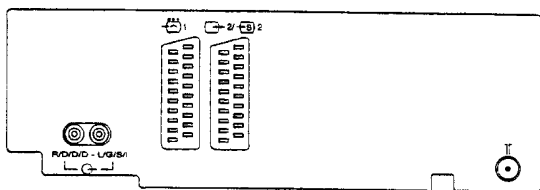
When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



FUSE

How to replace the fuse.
Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector (⑥-1 ②-2/③-4)



Pin No.	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 ± 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	○	○	Red input (S signal) chroma input	0.7 ± 3dB, 75 ohms, positive 0.3 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V ± 3dB, 75ohms, positive sync: 0.3V(-3+10dB)
20	○	○	○	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync: 0.3V(-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm , positive Sync. 0.3V -3/+10 dB
4	C (S signal) input	0.3V ± 3dB 75 ohm , positive Sync.

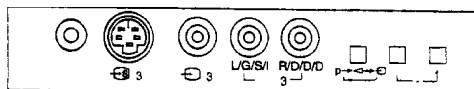


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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD, DUE TO A LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

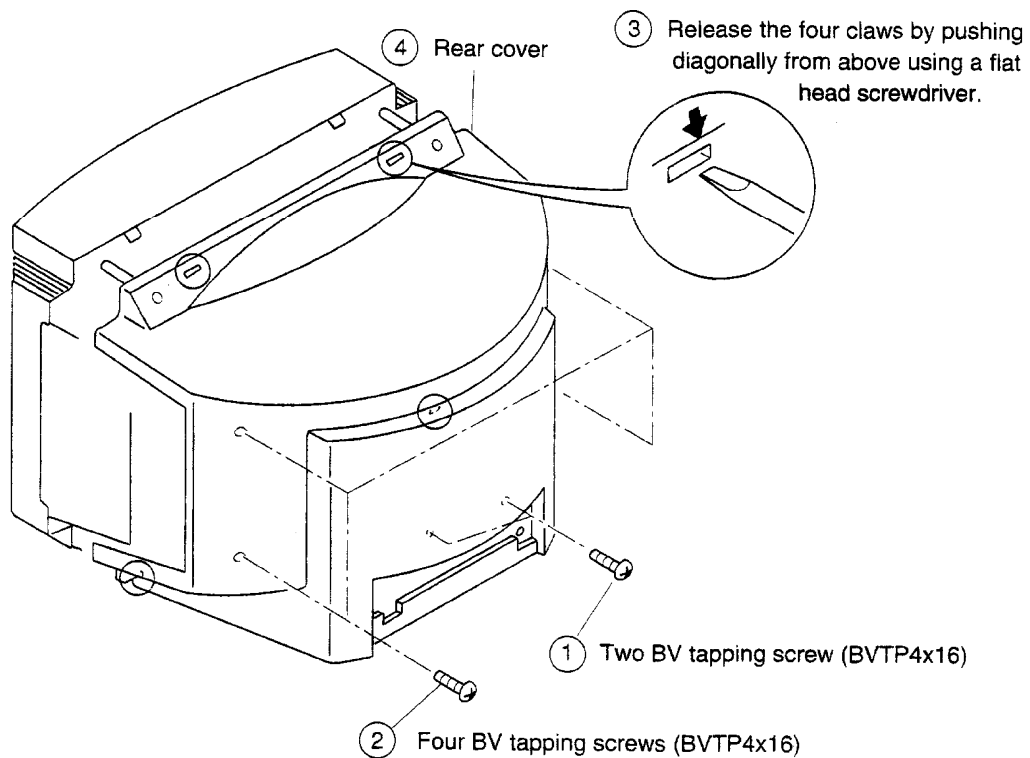
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHASSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DEPANNAGE. LE CHASSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDE A L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE !!

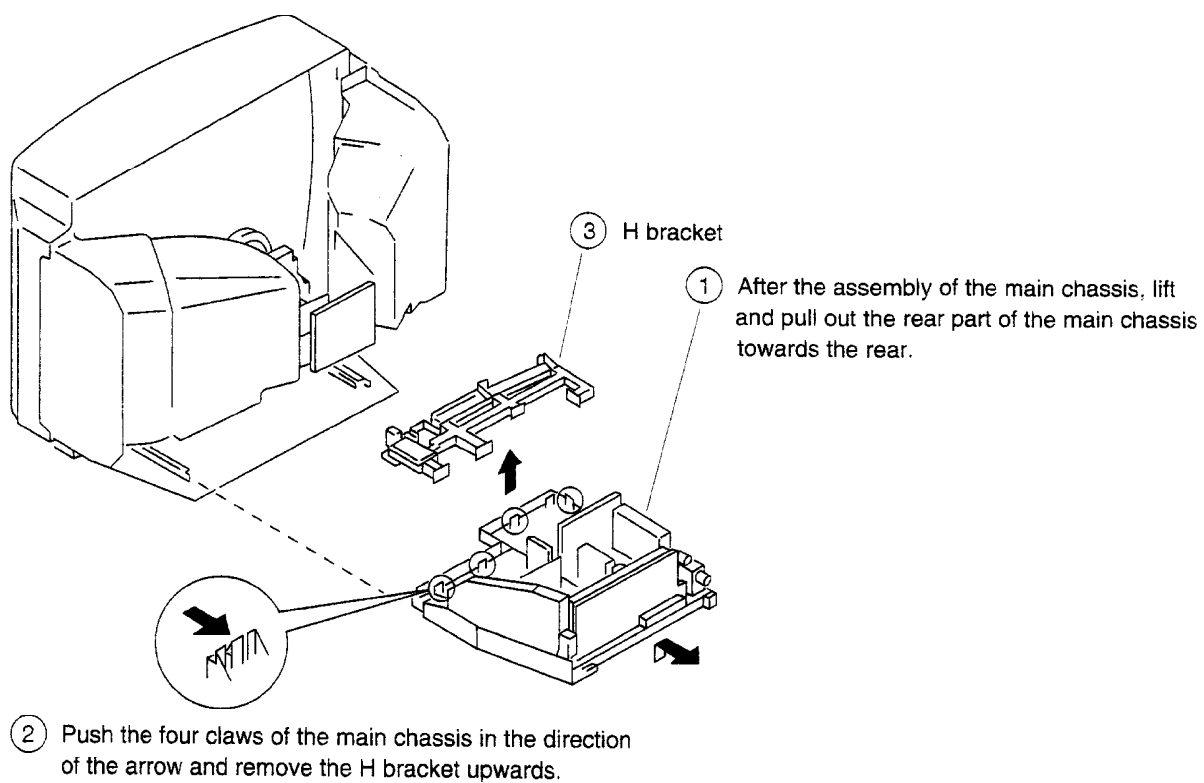
LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE Δ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY.

SECTION 2 DISASSEMBLY

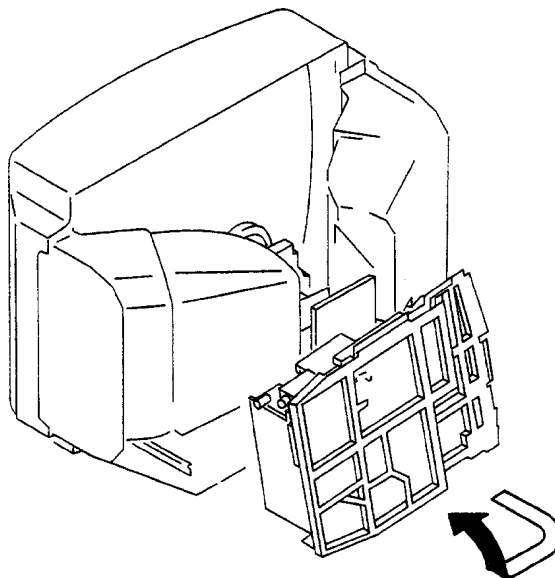
2-1. REAR COVER REMOVAL



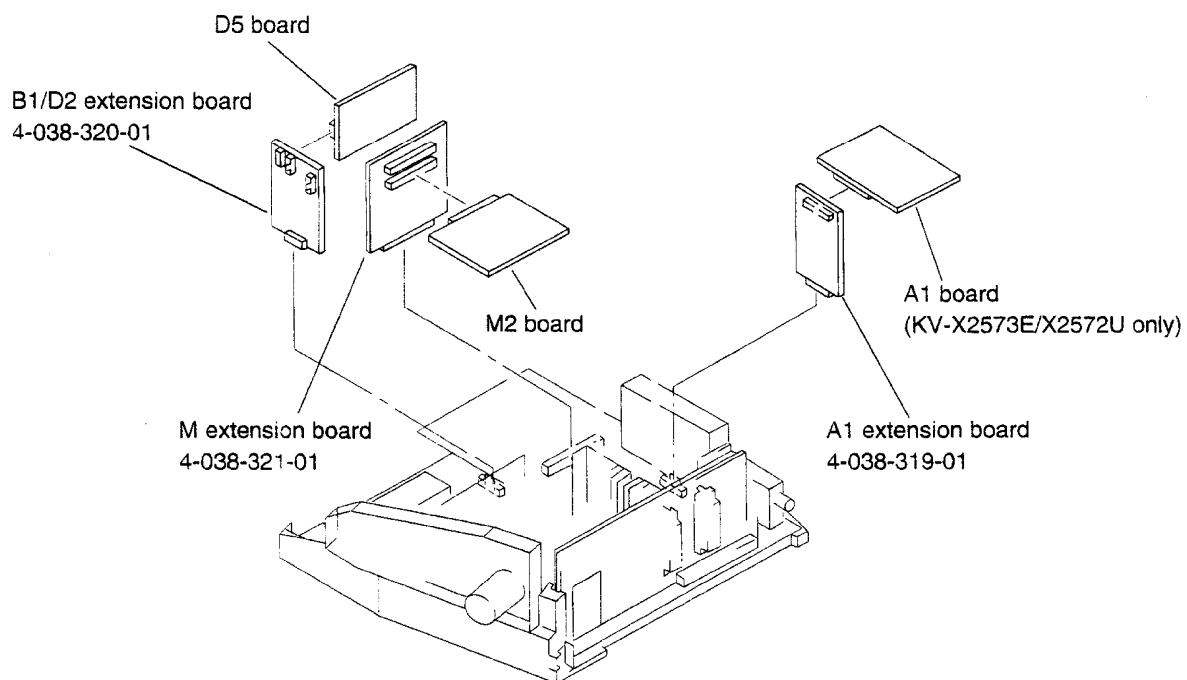
2-2. CHASSIS ASSY REMOVAL



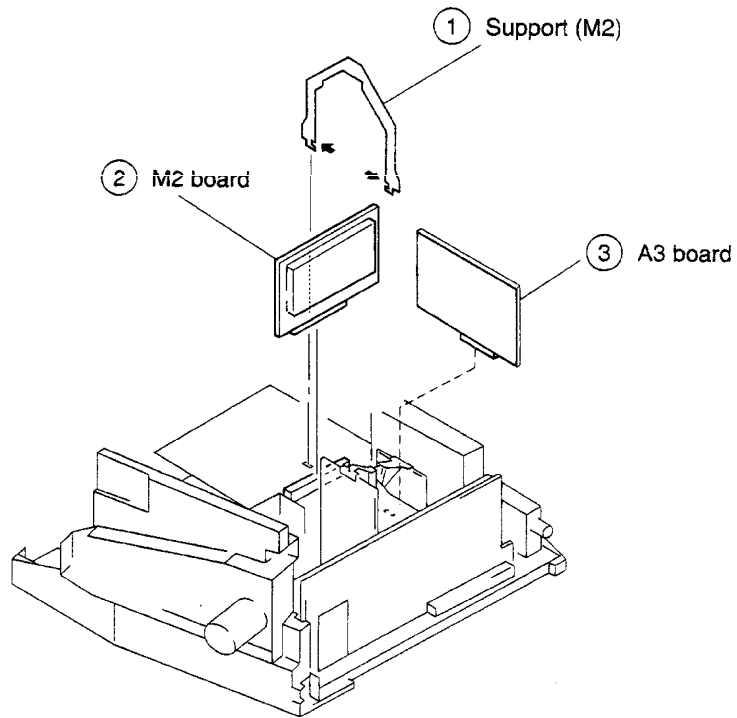
2-3. SERVICE POSITION



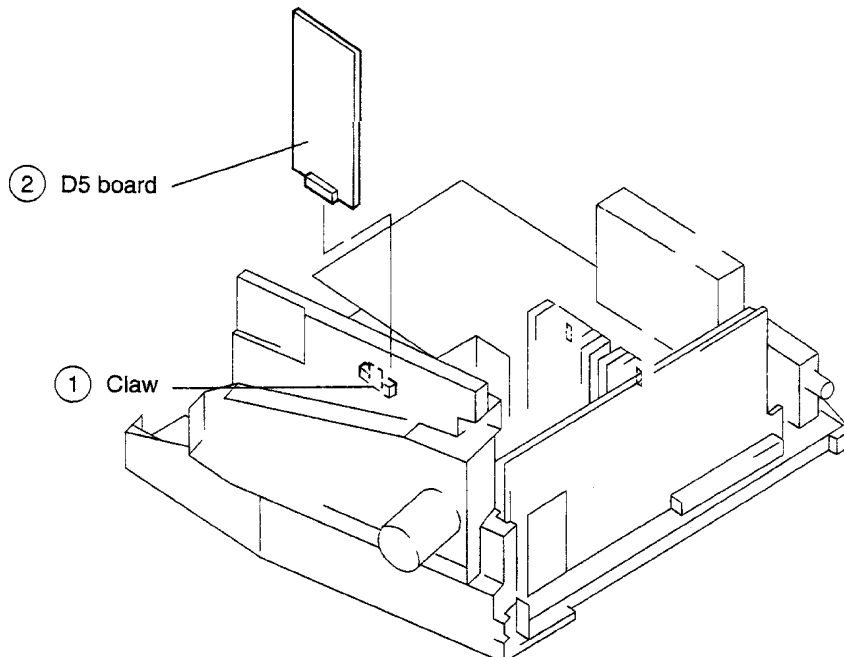
2-4. EXTENSION BOARDS



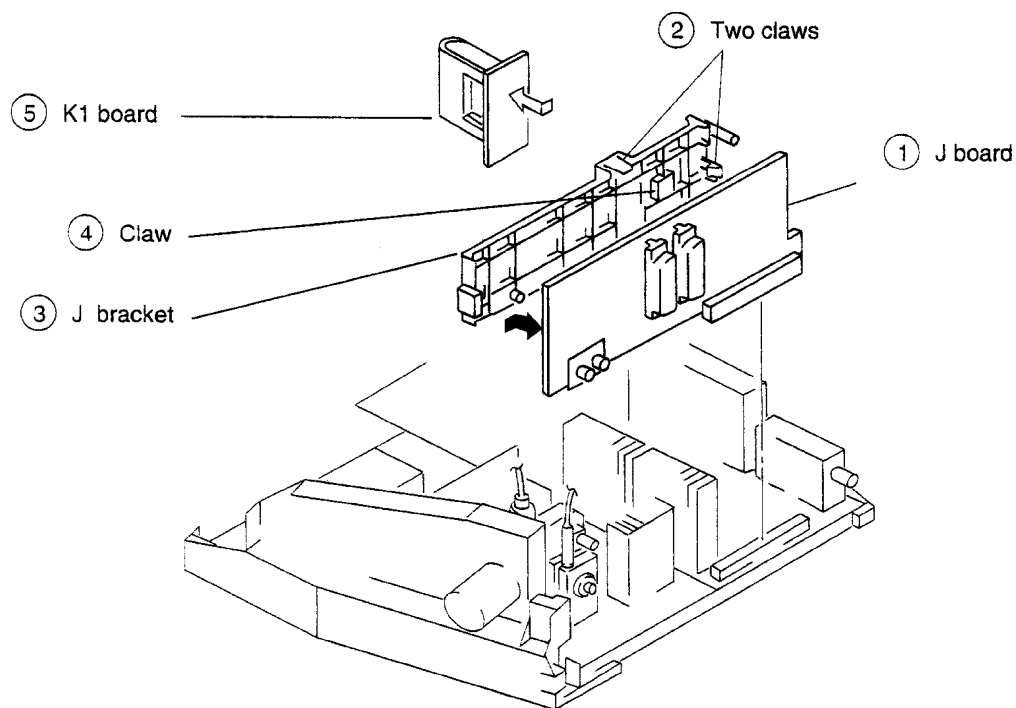
2-5. M2 AND A3 BOARD REMOVAL



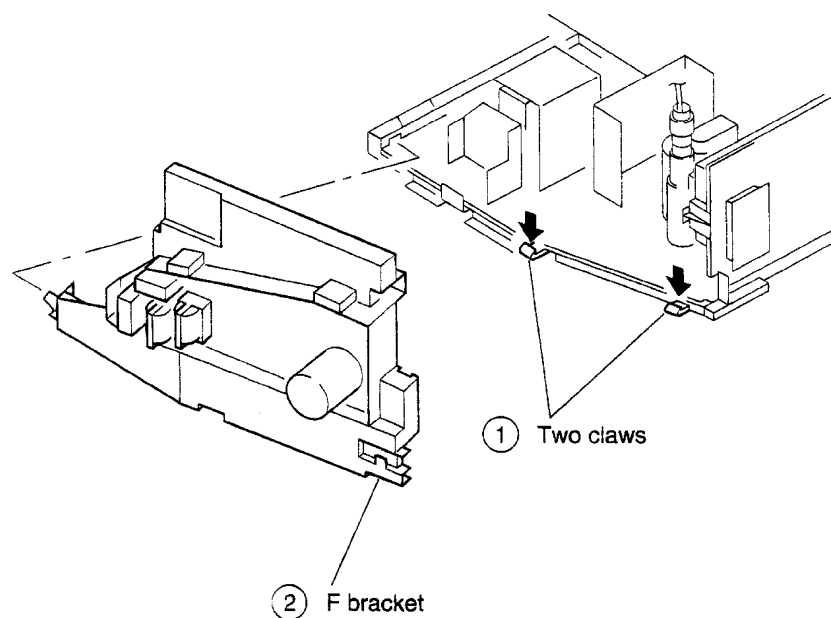
2-6. D5 BOARD REMOVAL



2-7. J AND K1 BOARD REMOVAL

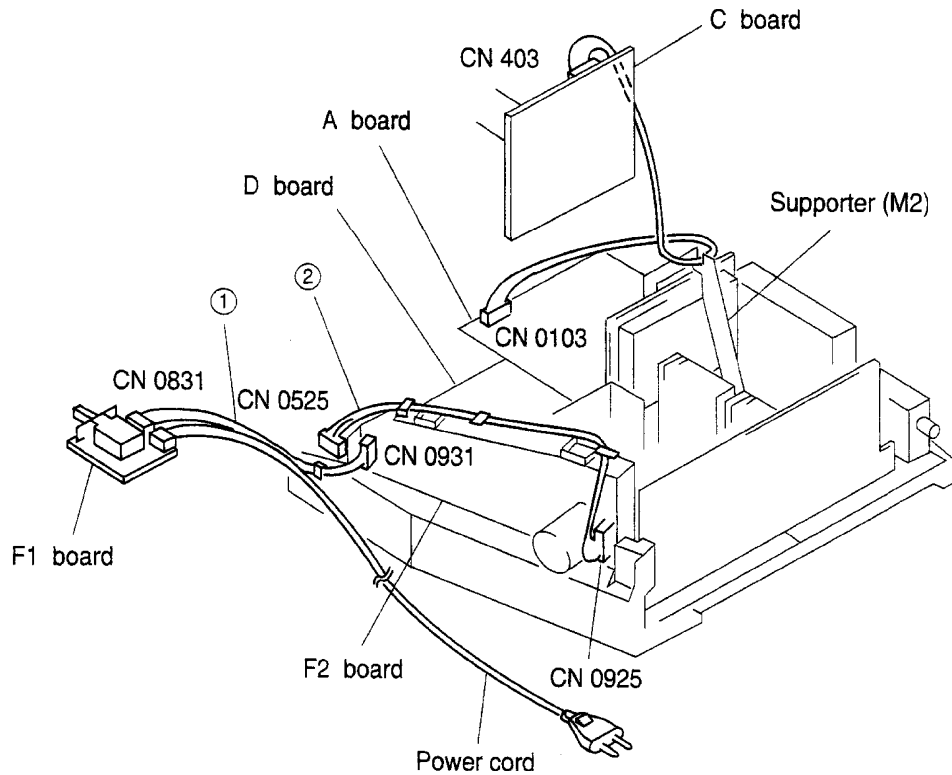


2-8. F BRACKET REMOVAL

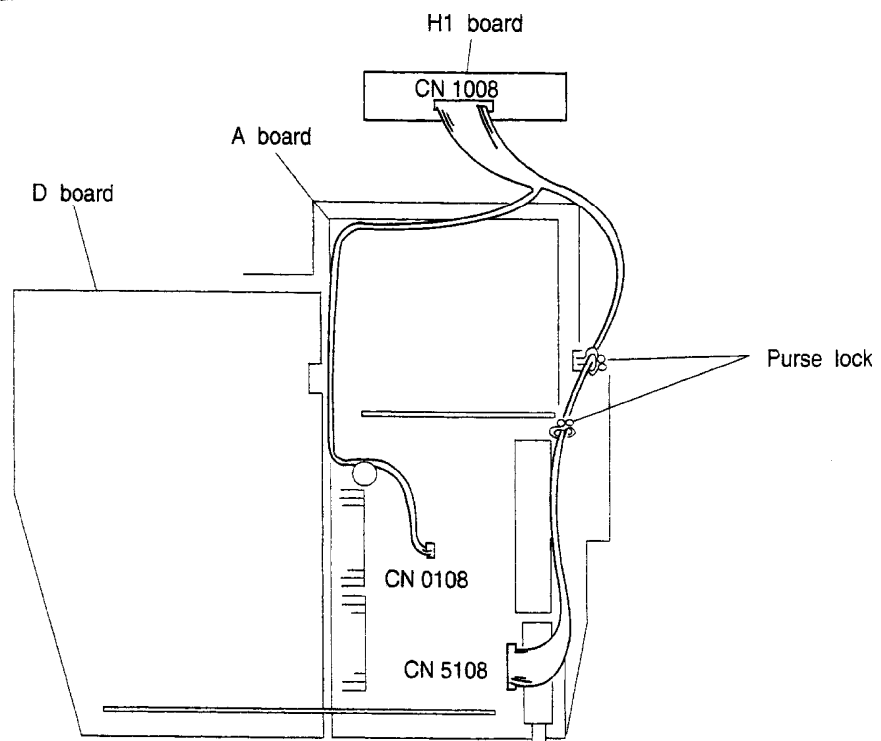


2-9-1. WIRE DRESSING

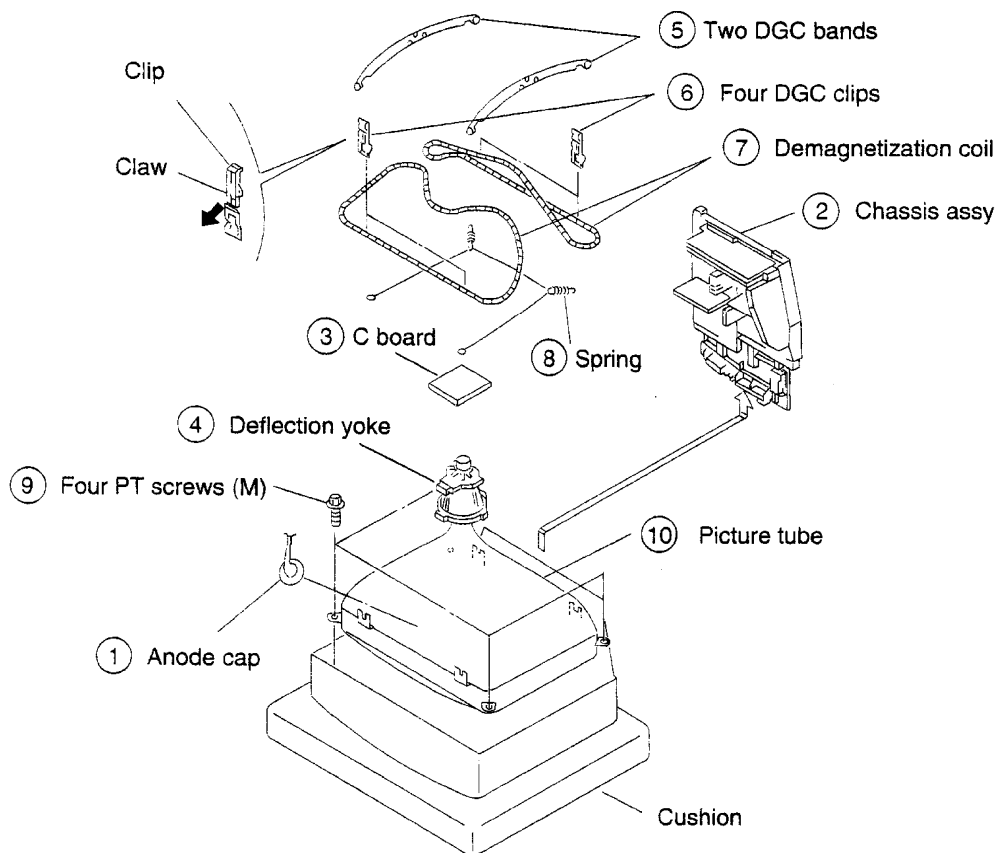
* Keep distance between ① and ②



2-9-2. WIRE DRESSING



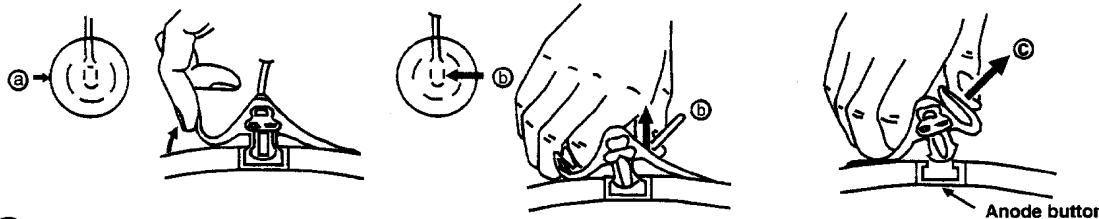
2-10. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

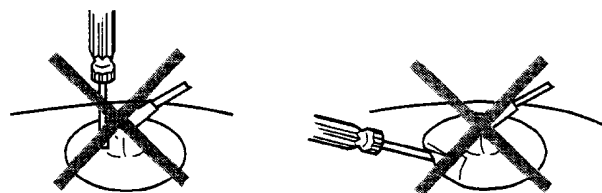
* REMOVING PROCEDURES.



- ① Turn up one side of the rubber cap in the direction indicated by the arrow ①
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ③

• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :

① Contrast 80% (or remote control normal)
 ⚙ Brightness 50%

Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.

Contrast } normal
 Brightness }
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig.3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Fig.3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig.3-4)

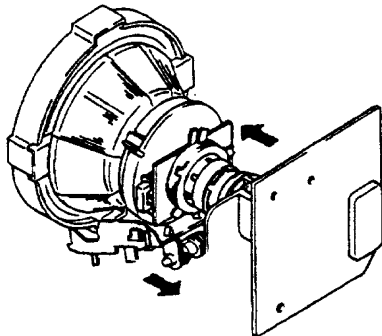


Fig.3-1

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Fig.3-2

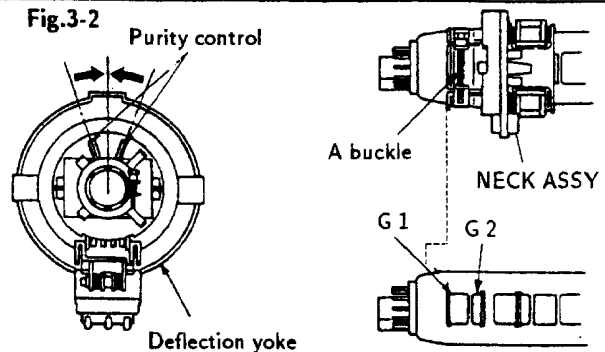


Fig.3-3

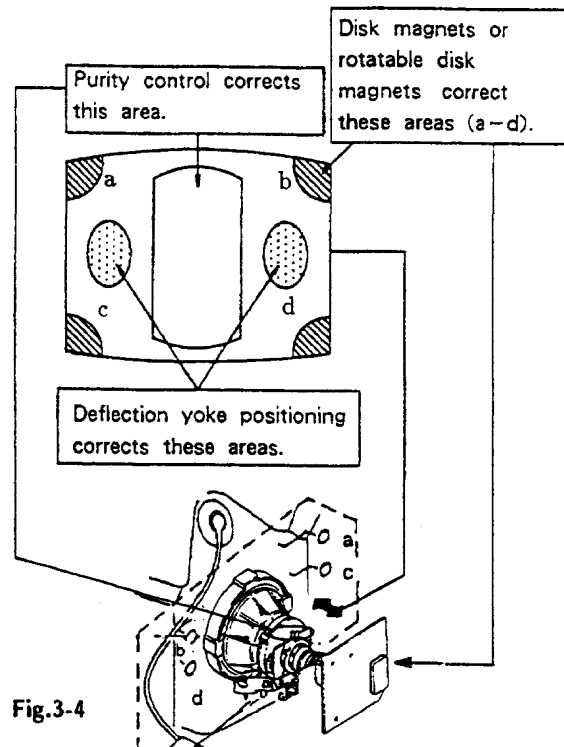
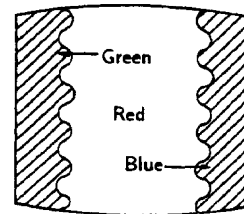


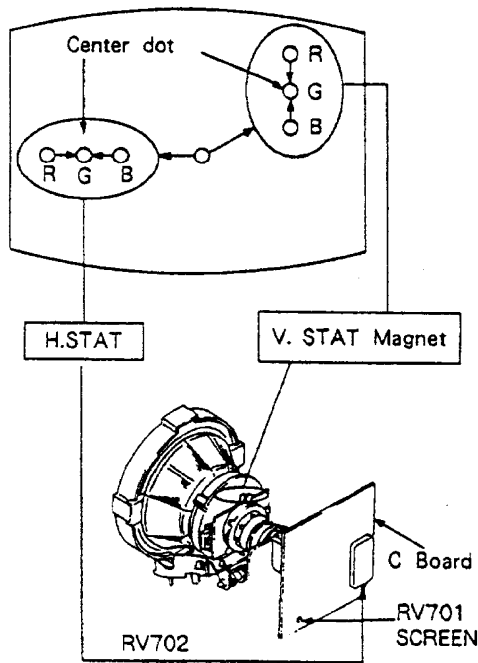
Fig.3-4

3-2. CONVERGENCE

Preparations :

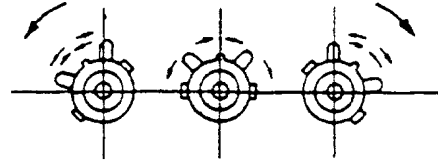
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence

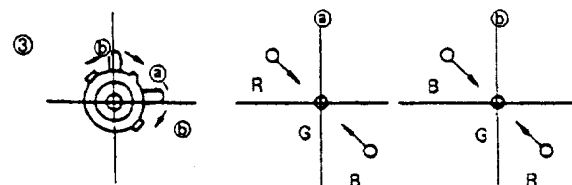
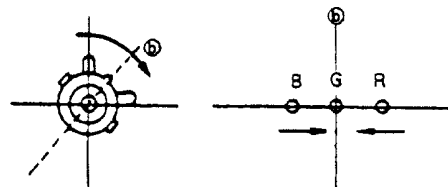
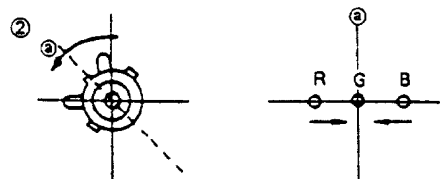
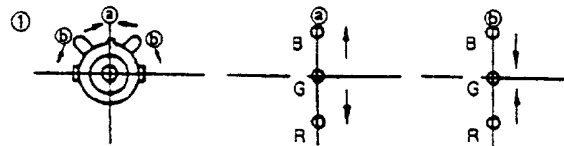


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V. STAT magnet influence each other)

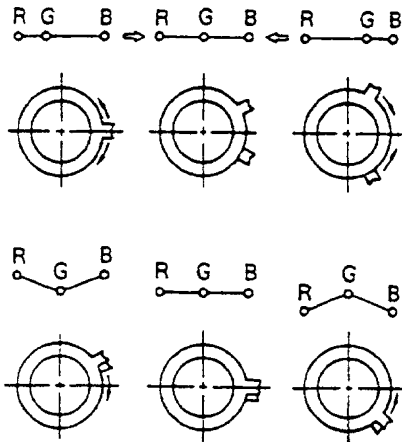
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



4. If the V.STAT magnet is moved in the direction of the ① and ② arrows, the red, green, and blue points move as shown below.

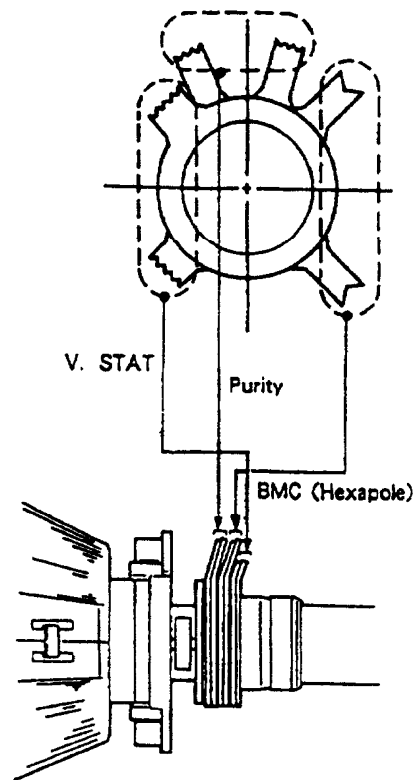


● Operation of BMC (Hexapole) Magnet



- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.

Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).



(2) Dynamic convergence adjustment

Preparations :

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

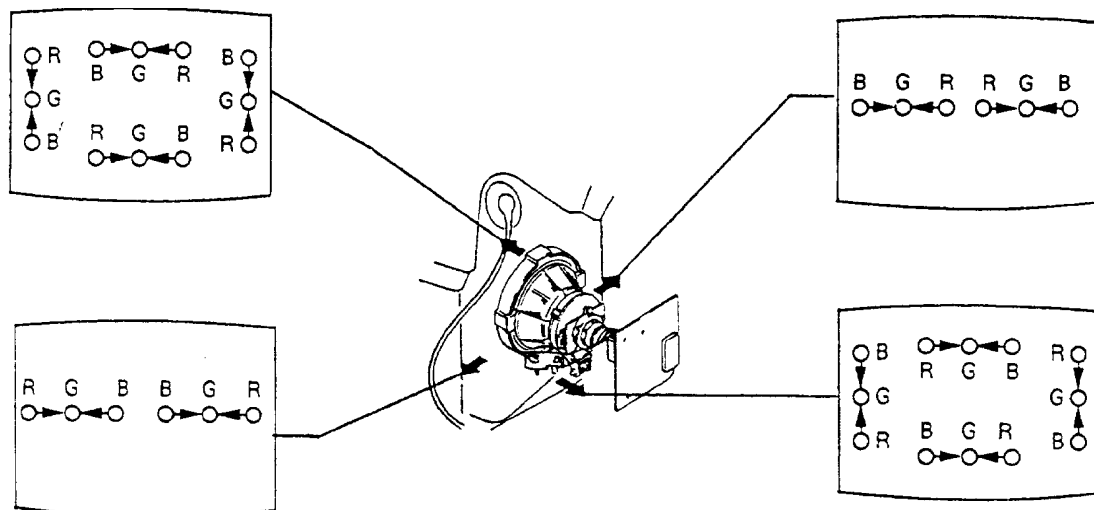
1. Slightly loosen the deflection yoke screws.

2. Remove the deflection yoke spacer.

3. Move the deflection yoke as shown in the figure below and optimize the convergence.

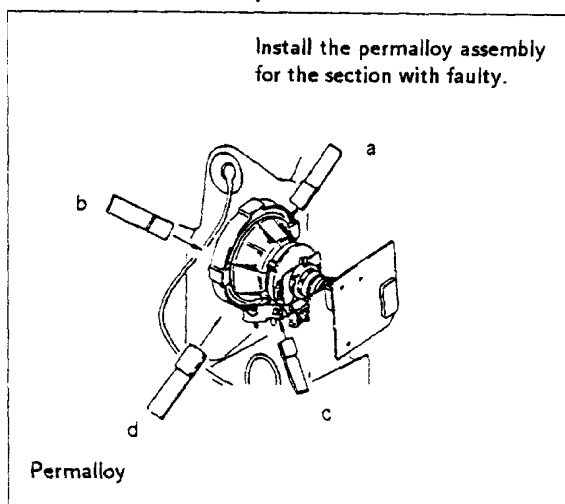
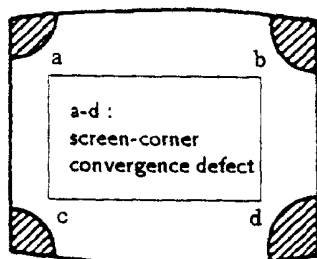
4. Tighten the deflection yoke screws.

5. Install the deflection yoke spacer.



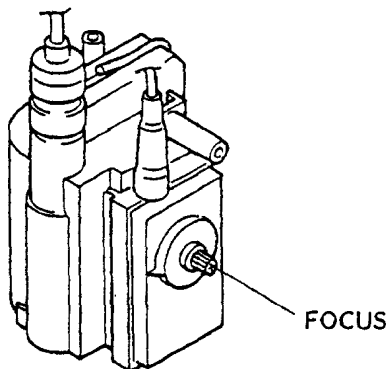
(3) Screen corner convergence

If you cannot adjust corner convergence properly, correct them with permalloy.



3-3. FOCUS

Adjust the focus to optimize the screen.



3-4. WHITE BALANCE

Screen G2 Setting

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G 2 control RV 701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" to how to enter service mode.)
3. Select CXA1587S on menu.

09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.

4. Set picture to MAX.
5. Adjust G-DRIVE B-DRIVE with buttons so that the white balance becomes optimum.
6. Press button to write the data for each item.
7. Set picture to MIN.
8. Adjust G-AUTO CUT OFF, B-AUTO CUT OFF, R-MANUAL CUT OFF, G-MANUAL CUT OFF and B-MANUAL CUT OFF with buttons so that the white balance becomes optimum.
9. Press button to write the data for each item.

SECTION 4

CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-831

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing any two buttons on the front panel.

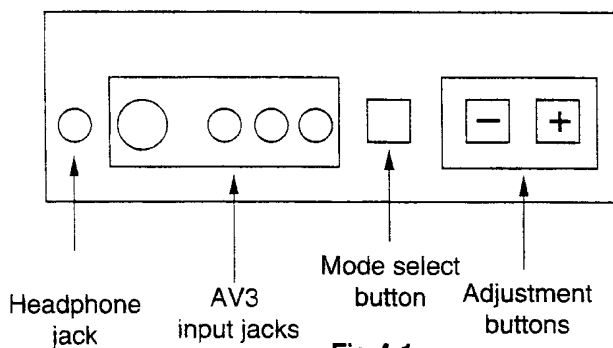


Fig.4-1

2. "TT" will appear at the upper right corner of the screen.

Command operation in service mode.

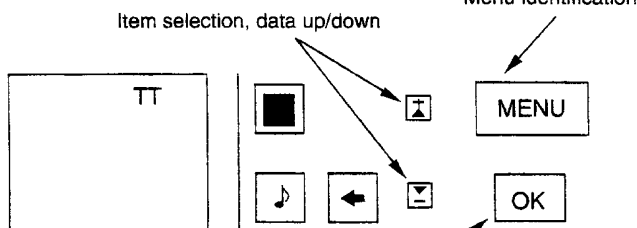


Fig.4-2

Fig.4-3

Selection completion,
data written-in

3. Press the MENU button on the remote commander to obtain the menu on the screen.

MAIN MENU
Programme Table
Video Connection
Picture Control
Sound Control
Timer
Preset
Language
> DEMO
Select < > and press OK

Fig.4-4

4. Press the and buttons on the remote commander and move to DEMO.
5. Press button to proceed to the next menu.
6. The menu of fig. 4-5 will appear on the screen. Select the DEVICE corresponding to the adjustment item from the table on the next page.

DEVICES
Initialize
> CXA1587
CXD2018
TDA9145
CXA1526
TDA6612
CX7948A
P/P service
Select < > and press OK

Fig. 4-5

7. If adjustment item is CXA1587, press the button and move to CXA1587.

CXA1587

Item No	Adjustment item	Data Amount
01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	12
06	RGB PICTURE	7
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
> 09	SUB BRIGHT	ADJ.
10	SUB HUE	8
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.

8. Press button to get the next selection menu.
9. Press button and move to the adjustment item and press button.
10. Press and buttons to change the data in order to comply with each standard.
11. Press button to write data.
12. Turn off the power to quit service mode when adjustments are completed.

CXA1587

Item No	Adjustment item.	Data Amount
01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	12
06	RGB PICTURE	7
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
09	SUB BRIGHT	ADJ.
10	SUB HUE	8
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.
21	GAMMA LEVEL	8
22	DC TRANSFER RATIO	3
23	DYNAMIC PICTURE	2
24	Y FILTER ADJ	ADJ.
25	Y DELAY TIME	15
26	Y DELAY SWITCH 1	0
27	Y DELAY SWITCH 2	1
28	SHARPNESS LIMIT	ON
29	TRAP	OFF
30	H SHIFT	36
31	DA TEST	ON
32	PRE/OVER	12
33	SUB FOCUS	2
34	SUB SHARPNESS	3
35	R MUTE	OFF
36	G MUTE	OFF
37	B MUTE	OFF
38	AGING 1 WHT	OFF
39	AGING 2 BLK	ON
40	AKB OFF	ON
41	INHIBIT RGB	ON
42	FORCED RGB	OFF
43	V/2 V	OFF
44	AXIS	PAL
45	HUE OFF	OFF
46	V EXTENSION	OFF
47	AFC 1	1
48	AFC 2	0
49	AFC	OFF

CXD2018

Item No	Adjustment item.	Data Amount
01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP. V	12
13	HV COMP. H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAN	OFF
19	INTERLACE	ON
20	H SHIFT	26
21	N/S CORRECTION	ADJ.

Typical On Screen Display based values when receiving PAL
Phillips pattern.

TDA6612	ADJ
Stereo-Separation	(31)

Should be adjusted twice, once for 4 : 3 and once for 16 : 9
mode.

Y FILTER ADJUSTMENT

1. Input a PAL RED pattern.
2. Connect an oscilloscope to pin ① of CN0403 (R OUT) on C board.
3. Enter into service mode and press 3,8.
4. Adjust data by Δ or ∇ to minimize the chroma element at CN0403 pin ①.

SUB BRIGHTNESS ADJUSTMENT

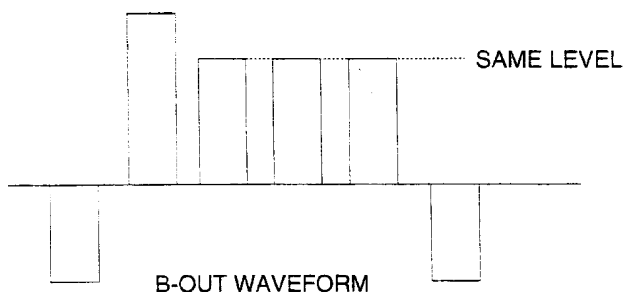
1. Input a Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of grey scale and CUT-OFF 20-IRE are only slightly visible on screen.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a Black Background.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Connect oscilloscope to pin ① of CN0403 (R OUT) and adjust data to obtain 2.5Vp-p.

SUB COLOR ADJUSTMENT

1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin ③ of CN0403 (B OUT) on the C board.
3. Enter into service mode and press 22 of CXA1587, 8 SUB COLOR.
4. Adjust data so that the right sides of the waveform are set to the same level.

**STEREO-SEPARATION ADJUSTMENT**

1. Input a 1kHz stereo signal to the L-ch and a 400Hz stereo signal to the R-ch.
2. Enter into service mode and press 19.
3. Adjust data so that sound is not detected in the Right-ch and the Left-ch.

DRIVE AND CUT-OFF

See direct test mode list attached and refer to sub brightness or such for adjustment method.

DEFLECTION SYSTEM ADJUSTMENT

1. Enter into service mode and select CXD2018.
2. Select and adjust each item in order to obtain the optimum image.

CXD2018

Item No	Adjustment item.	Data Amount
01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP. V	12
13	HV COMP. H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAN	OFF
19	NON INTERLACE	ON
20	H SHIFT	26
21	N/S CORRECTION	ADJ.

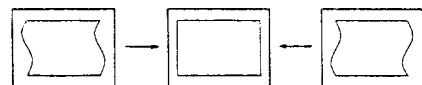
V SIZE



V SHIFT



S CORRECTION



V LINEARITY



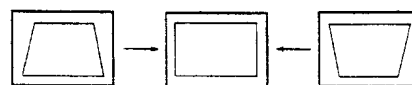
H SIZE



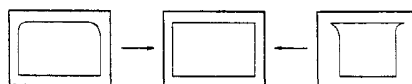
PIN AMP



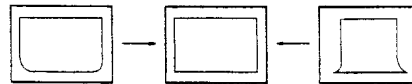
TILT



UPPER CORNER PIN



LOWER CORNER PIN



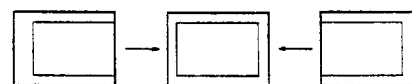
V BOW



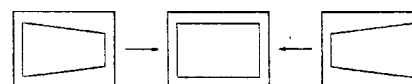
ANGLE





H SHIFT



N/S CORRECTION



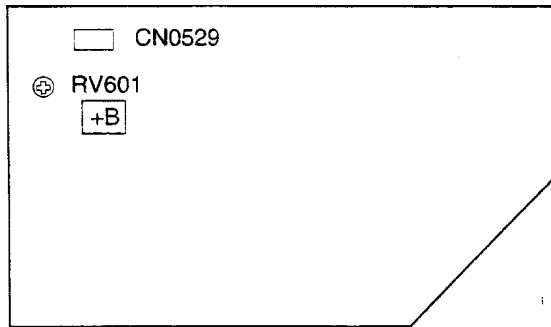
3. Press **OK** button to write data.

If the menu display prevents accurate adjustment, press  to clear, to resume, press  once again.

4-2. VOLUME ELECTRICAL ADJUSTMENTS

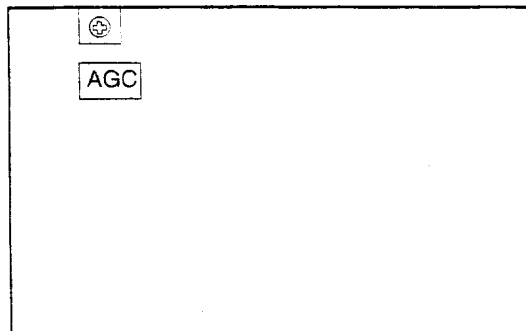
+B (+135V) ADJUSTMENT (RV601)

D BOARD



1. Switch on the power to the TV set.
2. Connect a digital multi-meter to pin ① of CN0529 on D board.
3. Adjust RV601 on D board to $+135V \pm 0.5V$.

AGC ADJUSTMENT (IF BLOCK)



1. Receive an off-air signal.
2. Adjust the AGC VR so that there is no snow noise or cross-modulation visible on the screen.
3. Change the receiving channel and confirm status.

4-3. TEST MODE 2 :

Is available by pressing Test button twice, OSD "TT" appears. The functions described below are available by pressing the two numbers. To release the Test Mode 2, press 0 twice, or switch the TV into Stand-by Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing Condition (Volume min., Picture max., Brightness max., Ageing 2 Mode of CXA1587, TDA2595 is locked to CXA1587 via PIN 34 of μ -Con.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	dummy
10	Tenth entry is deleted
11	Balance
12	Hue
13	Display of Software Version and TV set configuration
14	Adjustment of N/S Correction
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM.
17	Preset Level for AV Sources
18	dummy
19	Stereo Separation
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24-29	dummy

30	Tenth entry is deleted
31	Green Drive
32	Blue Drive
33	Green Cut Off (Auto Cut Off)
34	Blue Cut Off (Auto Cut Off)
35	Red Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
36	Green Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
37	Blue Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
38	Y-Filter adjustment (Trap is switched off and TDA9145 is switched in forced NTSC Mode)
39	dummy
40	Tenth entry is deleted
41	Default setting of CXA1587 (Only available in Prog 99)
42	Default setting of CXA2018 (Only available in Prog 99)
43	Default setting of CXA1526 (Only available in Prog 99)
44	(all Port High) Not yet
45	(all Port High) Not yet
46	IR Channel Presetting Mode The channel presetting can be done by a Special IR Transmitter
47-48	dummy
49	Erase the NVM Testbyte (this byte detects already stored NVM's) After selecting this function, switch TV Off and On -> the NVM will be preset by μ -Controller. (Not the channel data)

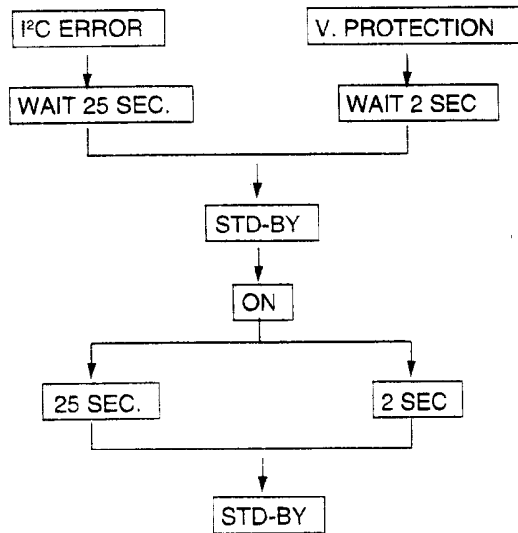
Note: For No 35, 36, 37 and 38 special pressing (AKB, forced Color Mode, Trap) is selected. After selecting a new Test Mode Number, the AKB is switched ON, the Trap is switched ON and TDA9145 is switched to Auto Search Mode.

In Test Mode 2 the Menu display is switchable by the Speaker-Off button.

4-4. ERROR MESSAGE

Self diagnostic system operates as follows.

- When the microprocessor is unable to receive an acknowledgement back from the device, the LED starts flashing according to the table below.



In the case of more than one error in parallel, the blinking error shows max priority according to the error number (e.g. error 2 and error 5 appear together, then LED,s show error 2).

ERROR TABLE

ERROR COUNT	IC TYPE	FUNCTION
1	I I C BUS	SDA low
2	X24C16	EPROM
4	TDA9145	Colour decoder
5	CXA1587	RGB/Jungle
6	TDA6612	Sound processor
7	CXD2018	V deflection
8	CXA1545	AV switch
11	SDA5248	Text
13		V protection

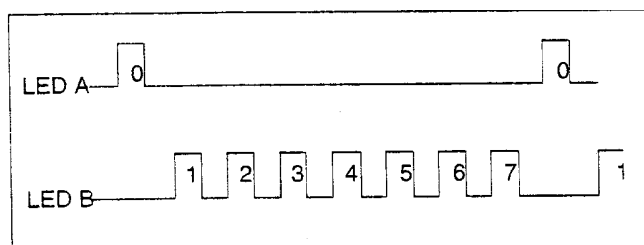
Stand By LED blinking

No 1K return

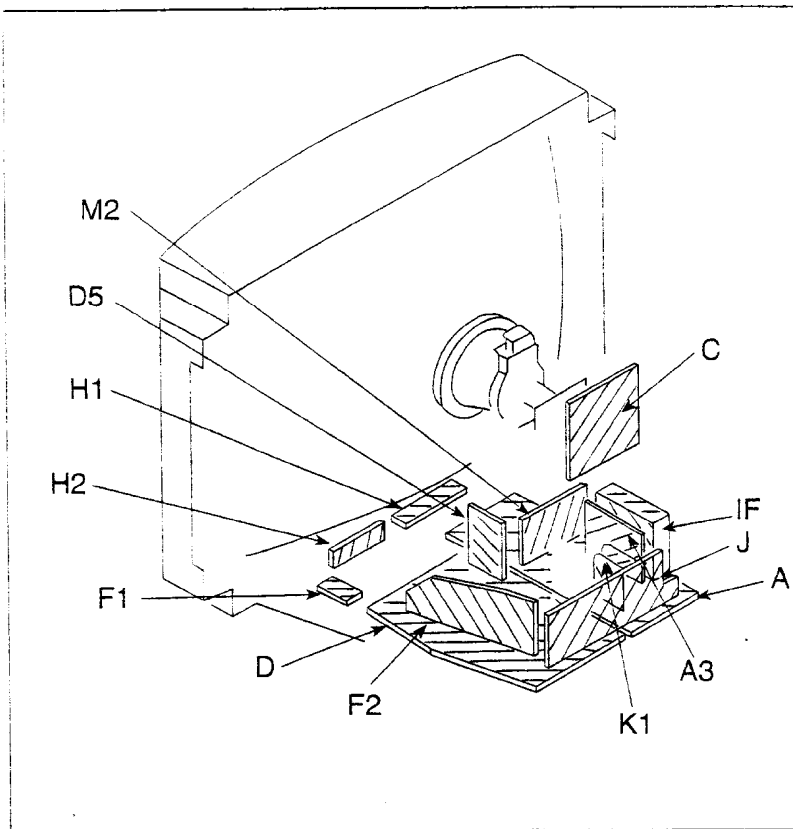
4-5. ERROR I²C BUS DIAGNOSTIC SYSTEM FOR AE2-B CHASSIS.

For all IC's used in the AE 2-B chassis which are necessary to obtain picture and sound there is an inbuilt I²C Bus diagnostic system.

In the case of no acknowledge bit, LED A and LED B start blinking as shown.





5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OX
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	*	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading:  are critical for safety. Replace only with the part number specified.









Note: Les composants identifiés par une hachure:  sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro :

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted.
pF: $\mu \mu F$ 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5mm
Rating electrical power: $\frac{1}{4}W$

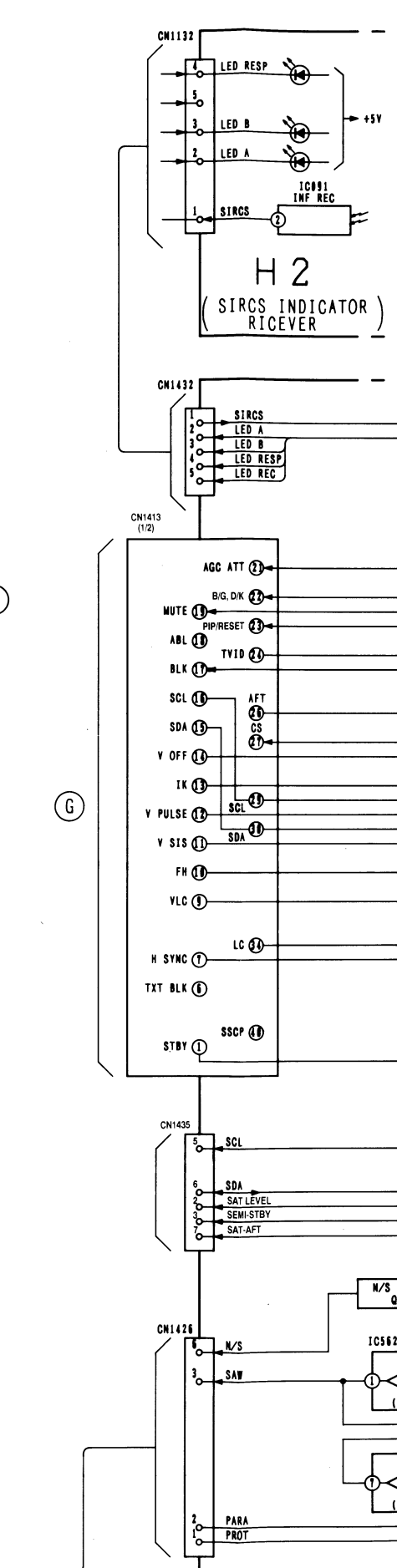
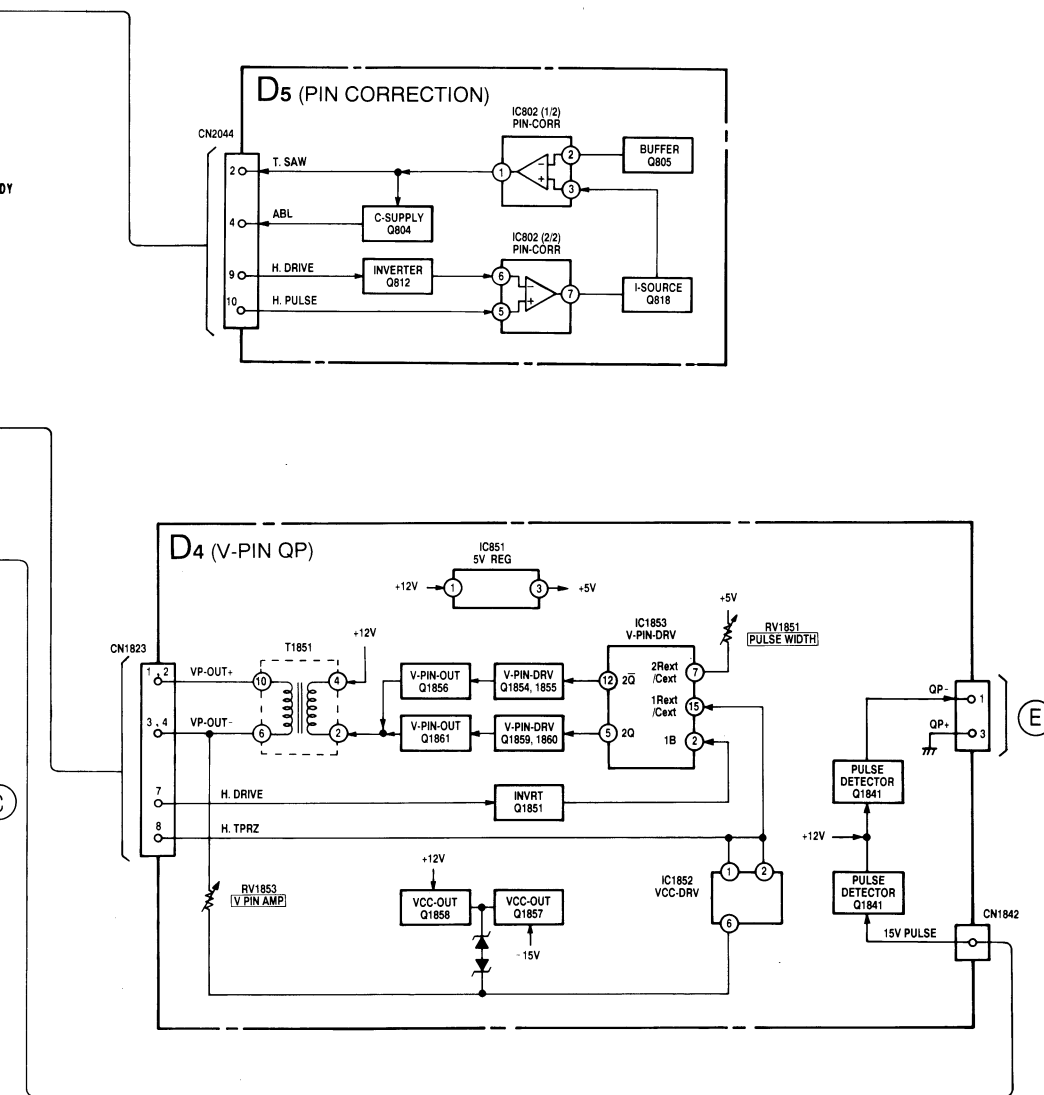
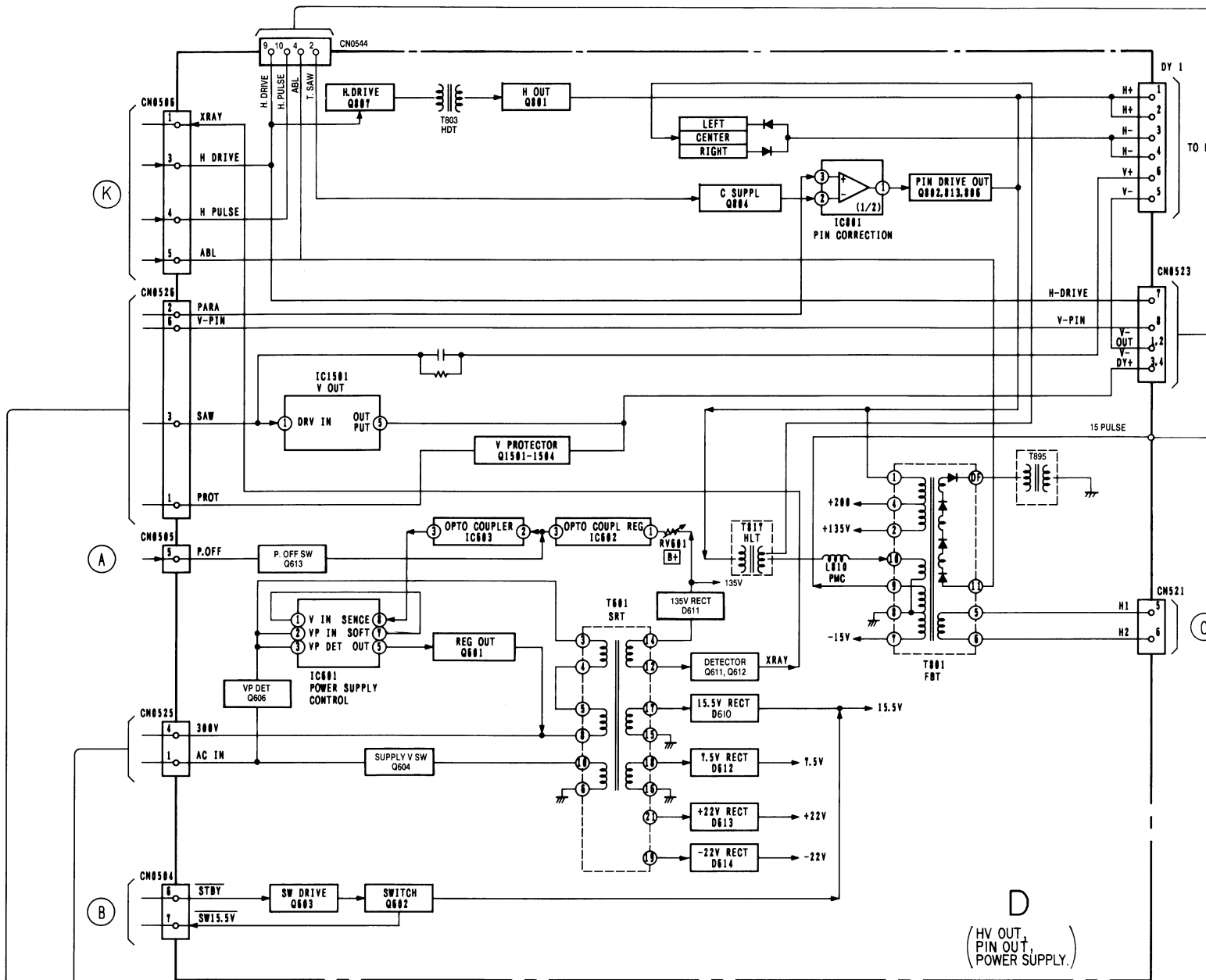
- Chip resistor is in $1/10W$.
- All resistors are in ohms.
 $k\Omega = 1000\Omega$, $M\Omega = 1000K\Omega$
-  : nonflammable resistor.
-  : fusible resistor.
- Δ : internal component.
-  : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a $10M\Omega$ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
-  : B+ bus.
-  : B- bus.
-  : signal path.(RF)
-  : earth - ground
-  : earth - chassis

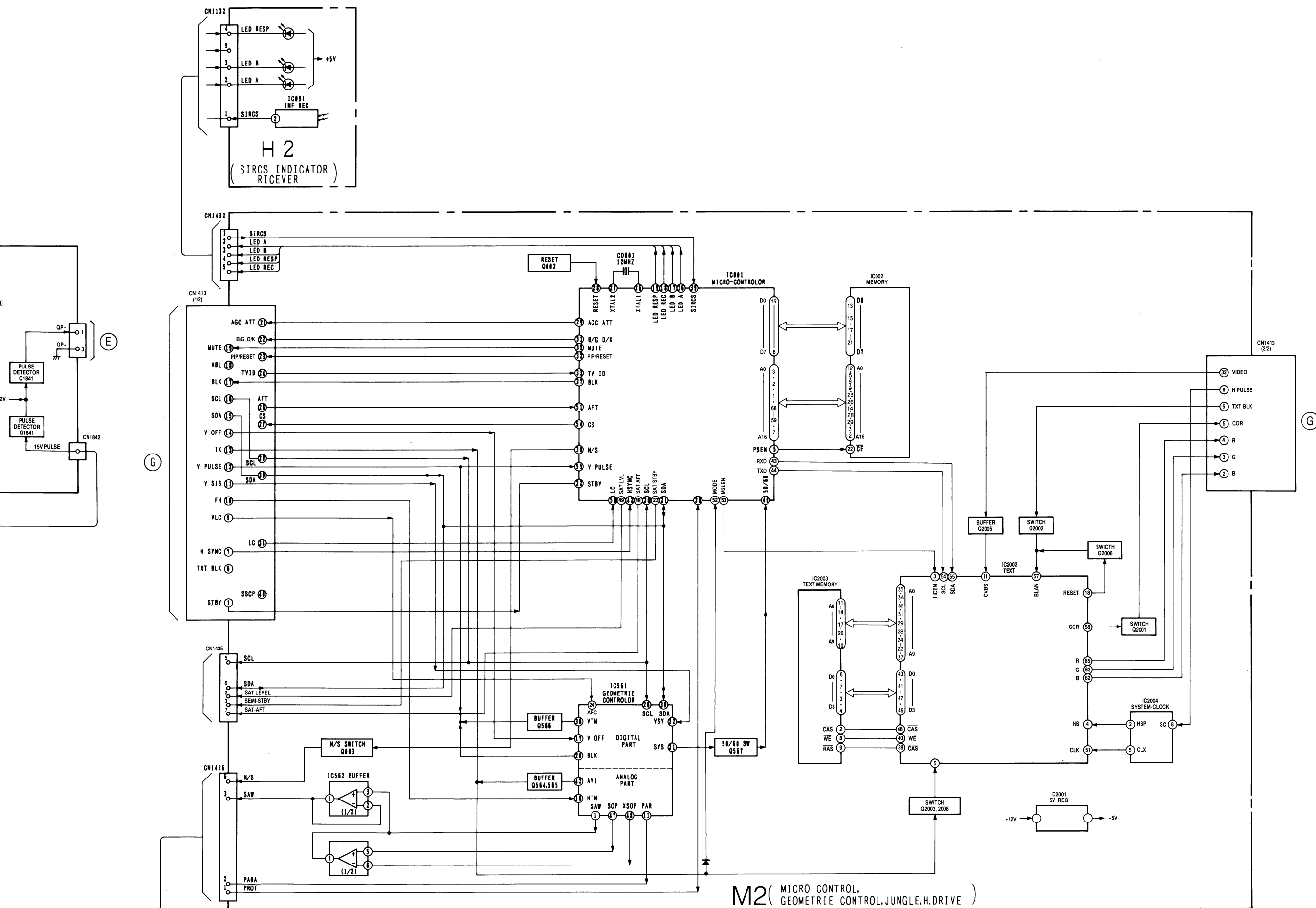
5-1. BLOCK DIAGRAM (1)

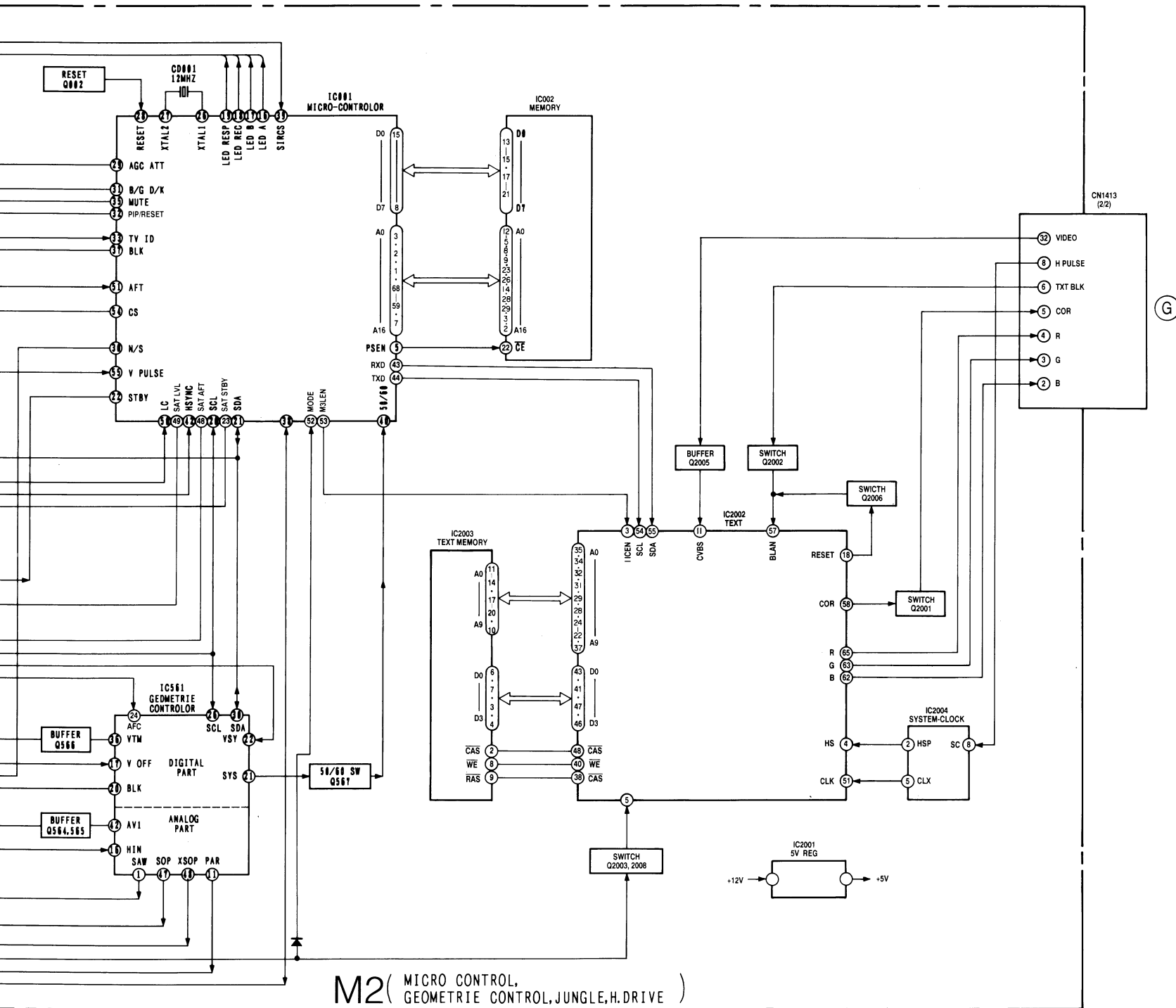
SECTION 5
DIAGRAMS

KV-A294

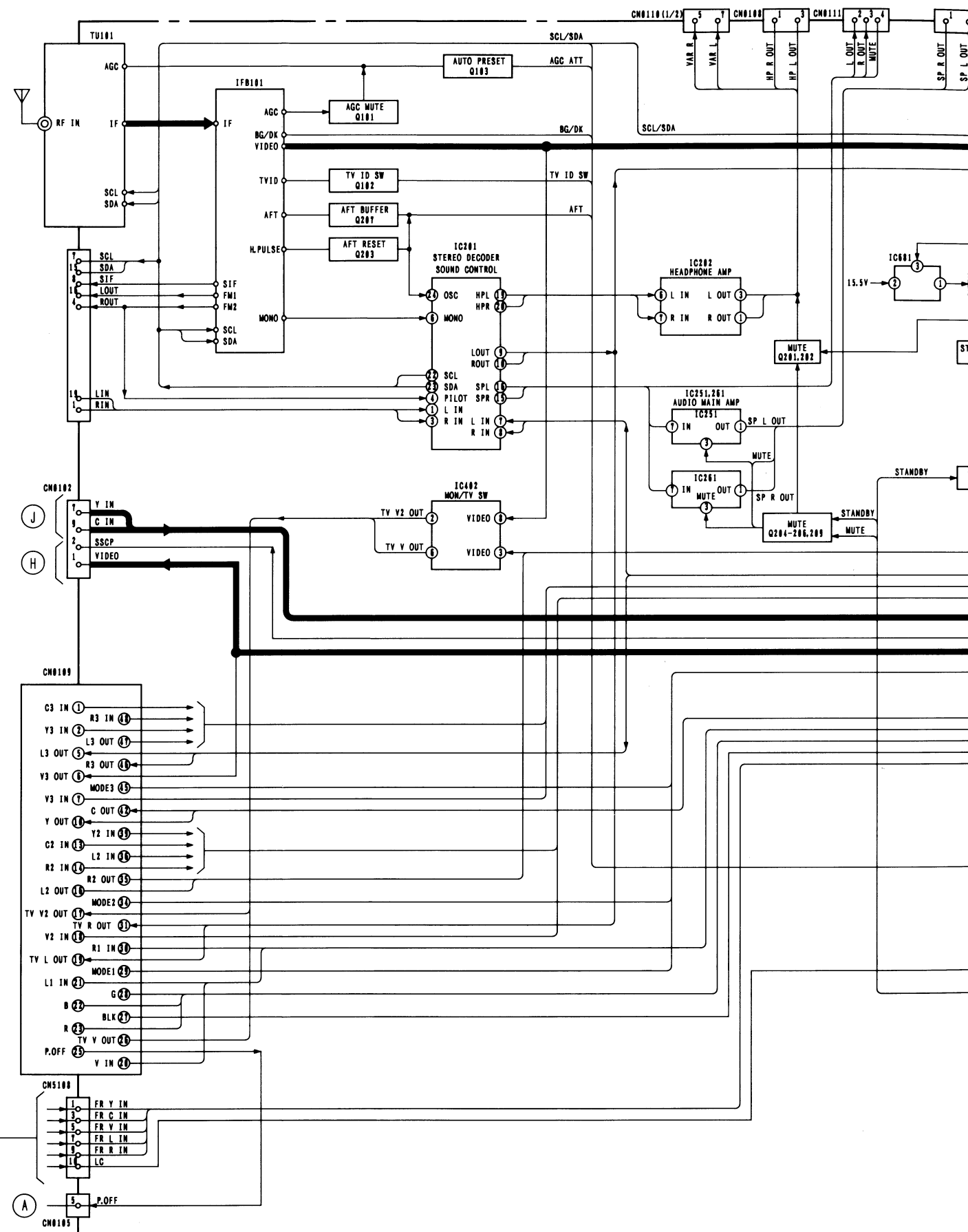
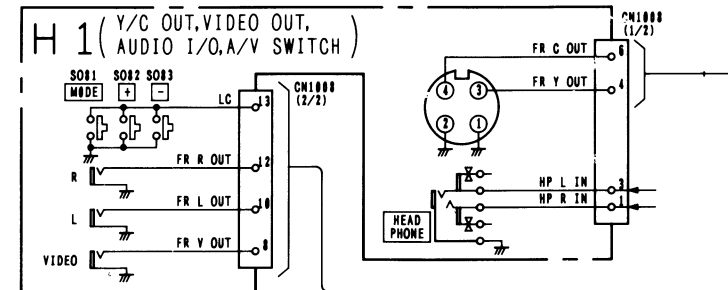
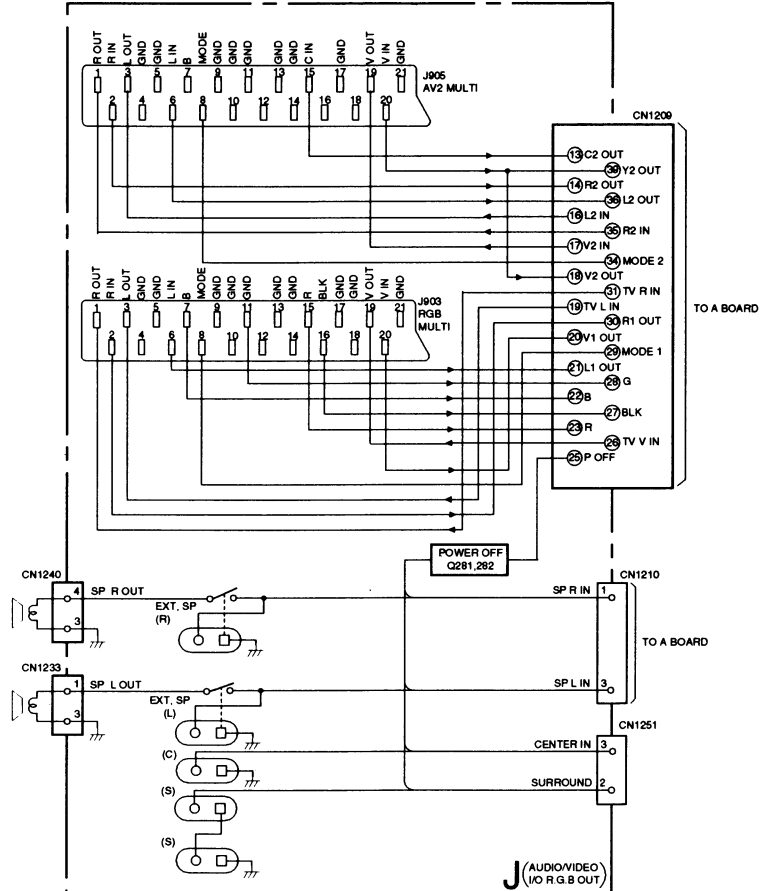
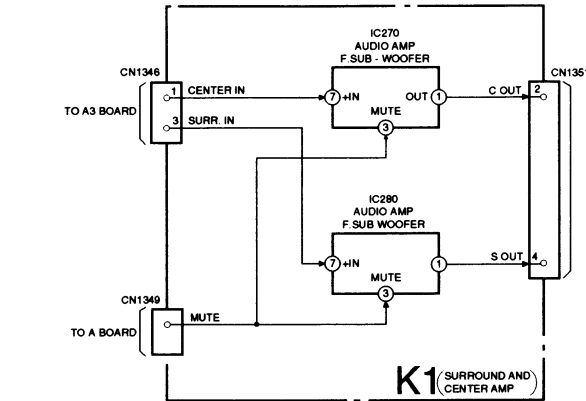
KV-A294

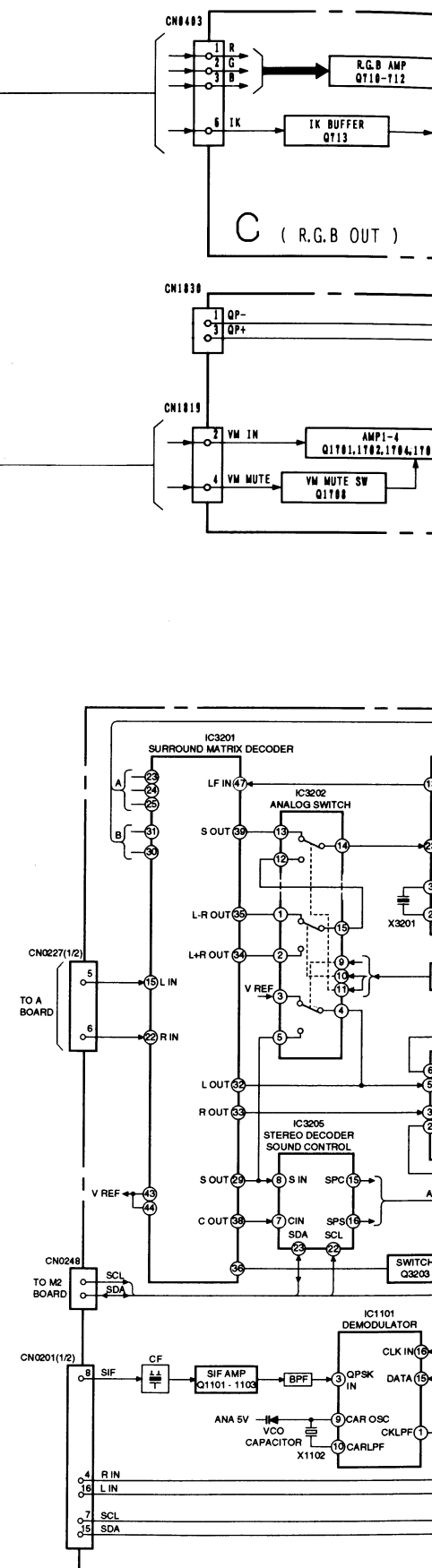


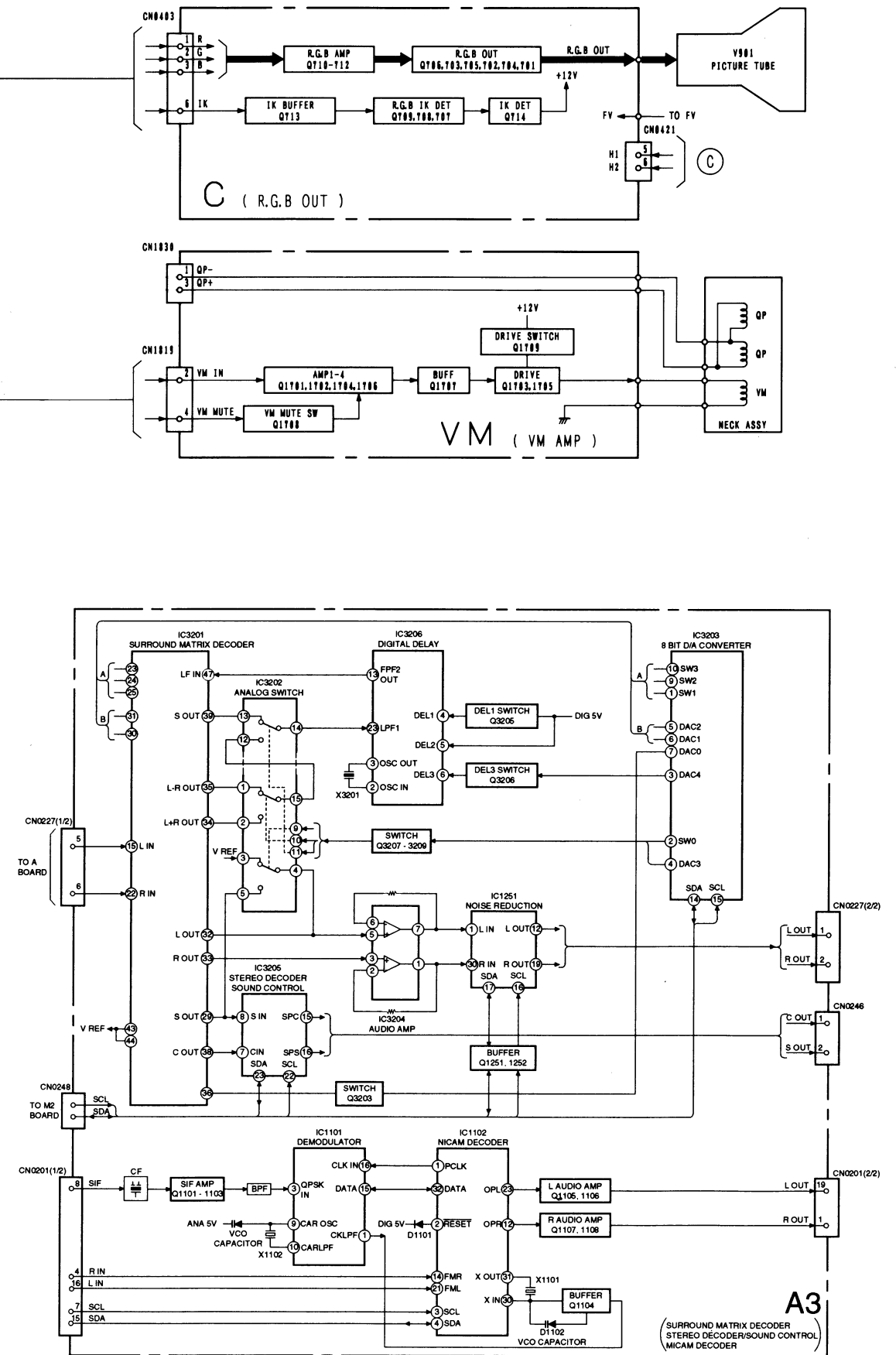
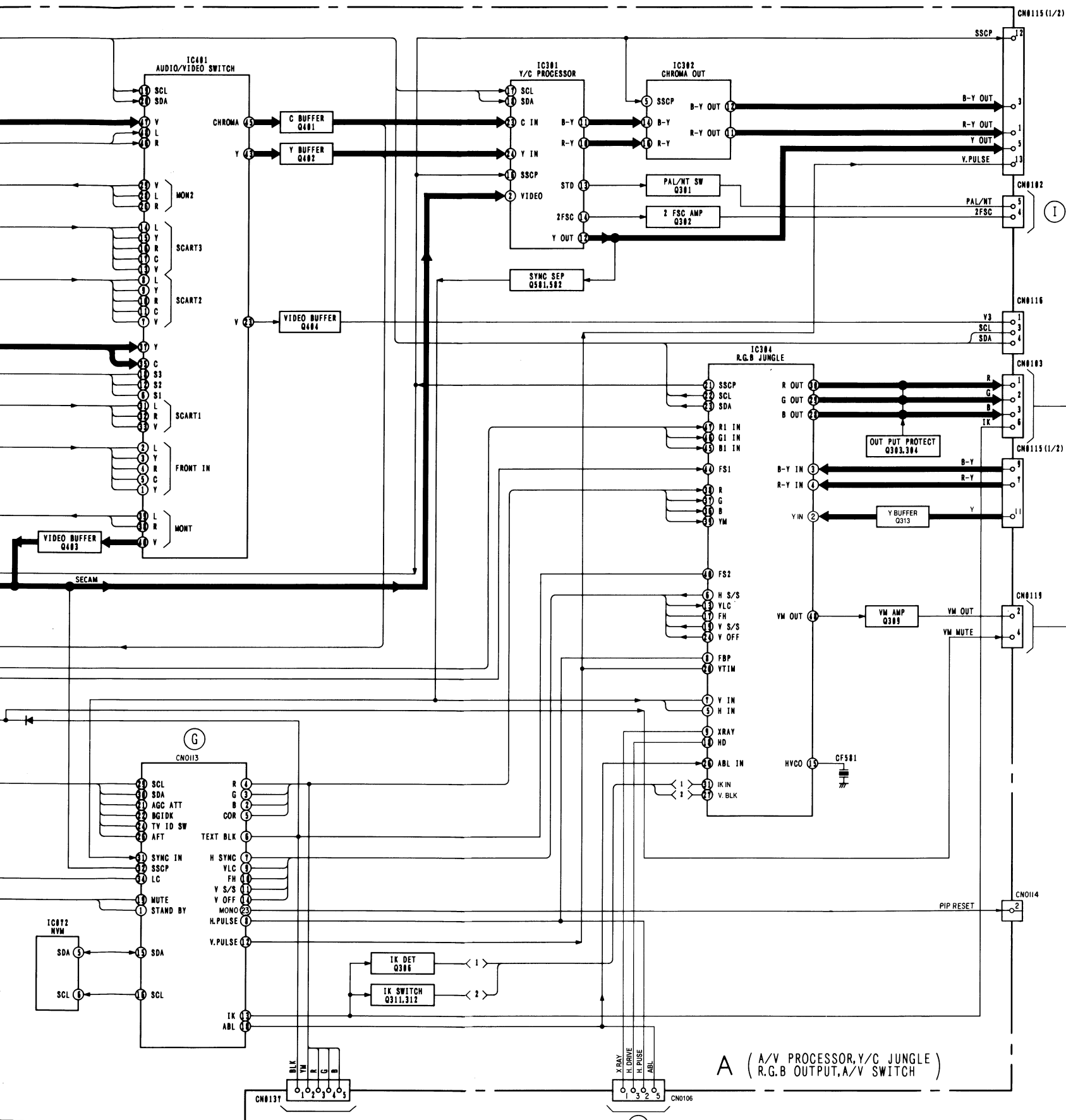




BLOCK DIAGRAM (2)















This diagram shows an exploded perspective view of a mechanical assembly. The components are labeled as follows:

- VM**: A large, curved, dome-shaped component at the top.
- M2**: A small rectangular component located below VM.
- D5**: A small rectangular component located below M2.
- H1**: A small rectangular component located below D5.
- H2**: A small rectangular component located below H1.
- F1**: A small rectangular component located below H2.
- D**: A small rectangular component located below F1.
- F2**: A small rectangular component located below D.
- D4**: A small rectangular component located below F2.
- K1**: A small rectangular component located below D4.
- A3**: A small rectangular component located below K1.
- A**: A small rectangular component located below A3.
- IF**: A small rectangular component located below IF.
- J**: A small rectangular component located below J.
- C**: A small rectangular component located below C.


Note :


- All capacitors are in μF unless otherwise noted.
pF: μF 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

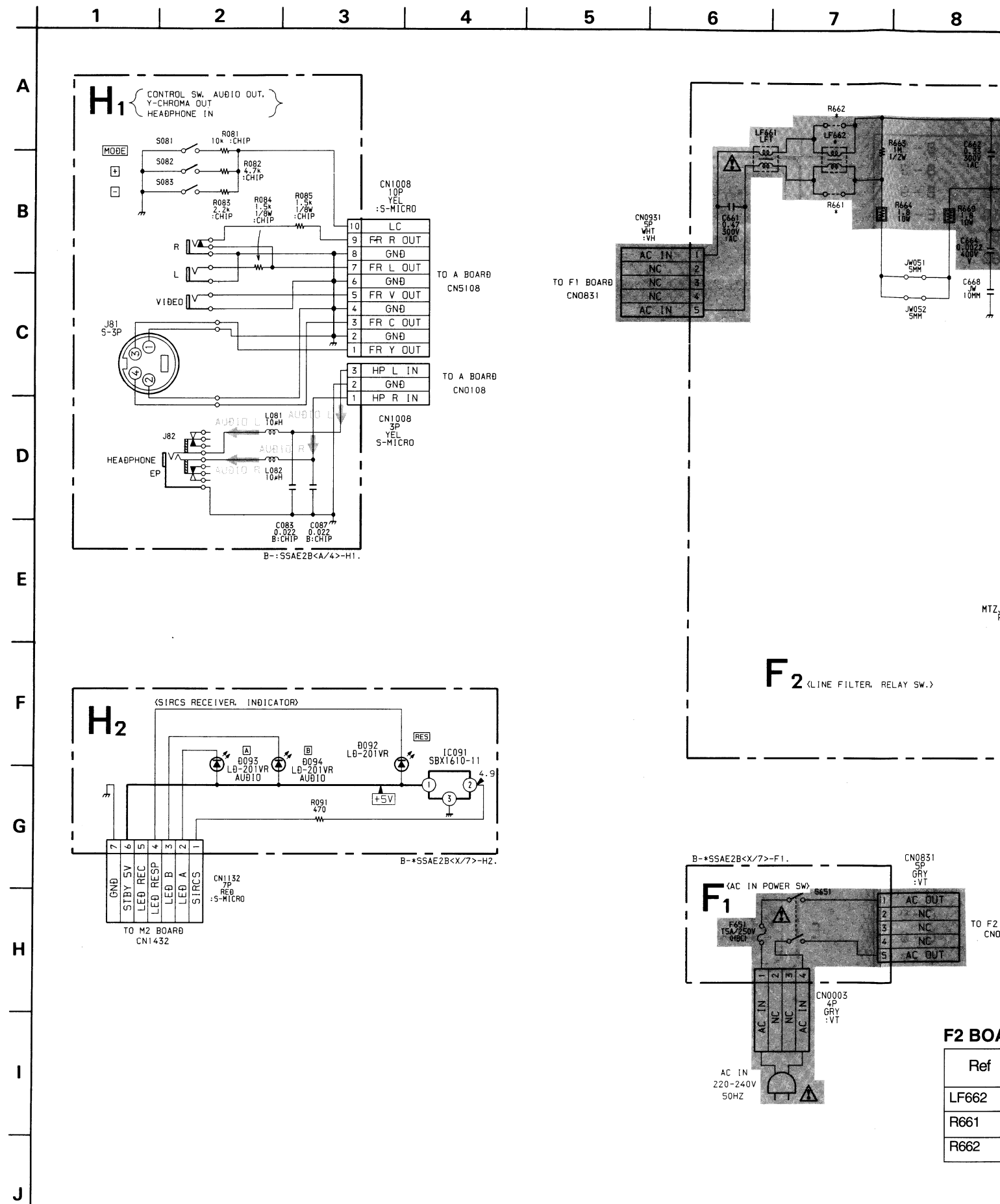
Pitch : 5mm
Rating electrical power : ¼W

- Chip resistor is in $1/10W$.
- All resistors are in ohms.
 $k \Omega = 1000 \Omega$, $M \Omega = 1000K \Omega$
-  : nonflammable resistor.
-  : fusible resistor.
- Δ : internal component.
-  : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a $10M \Omega$ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
-  : B + bus.
-  : B - bus.
-  : signal path.(RF)
-  : earth - ground
-  : earth - chassis

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque  sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.



H2
SONY

1-650-759-11
(170808411)

S1RCS
LEBA
LEBB
LEB RESP
LEN REC
LENT SV
GND

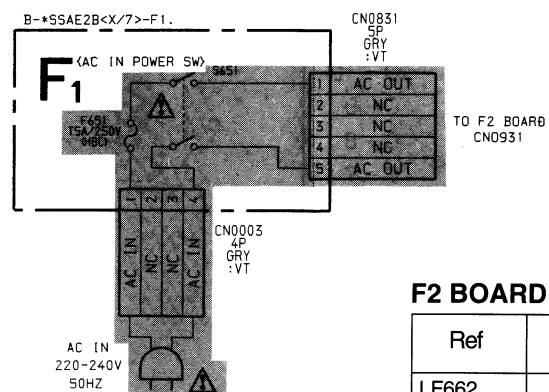
(B)

C161
C145
C164
CN132
C162
C163
C165

0093
0094
0091
1 0092

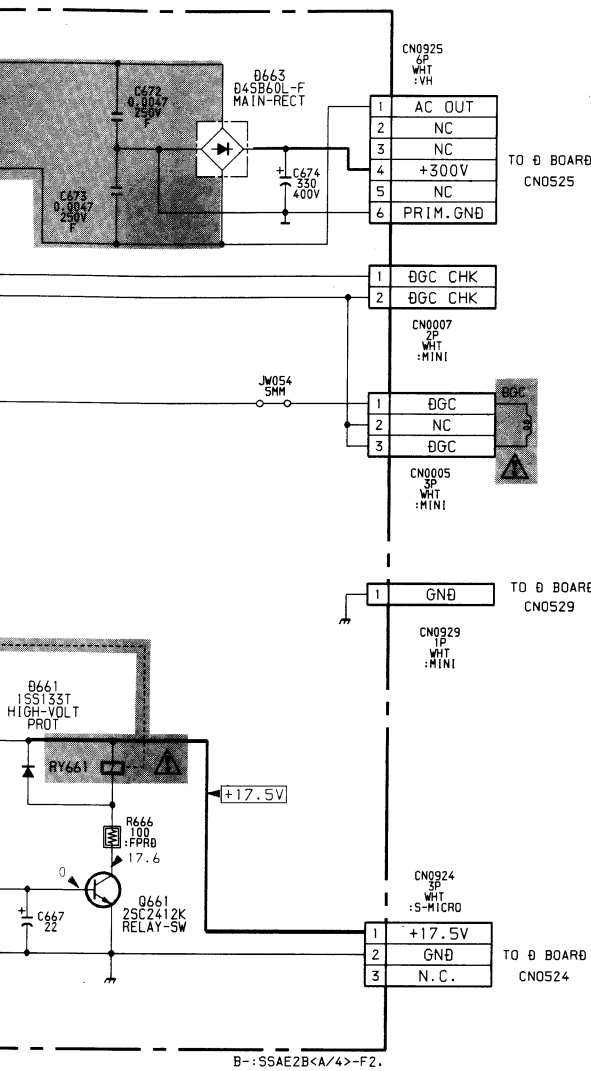
R09
JR161
JR160

IC091



Ref	A2941A	A2941B	A2941D	A2943E	A294IK	A2942U
LF662	LFT	-	LFT	-	-	-
R661	-	JW 10MM	-	JW 10MM	JW 10MM	JW 10MM
R662	-	JW 10MM	-	JW 10MM	JW 10MM	JW 10MM

0 11 12 13



IB	A2941D	A2943E	A2941K	A2942U
	LFT	-	-	-
MM	-	JW 10MM	JW 10MM	JW 10MM
MM	-	JW 10MM	JW 10MM	JW 10MM

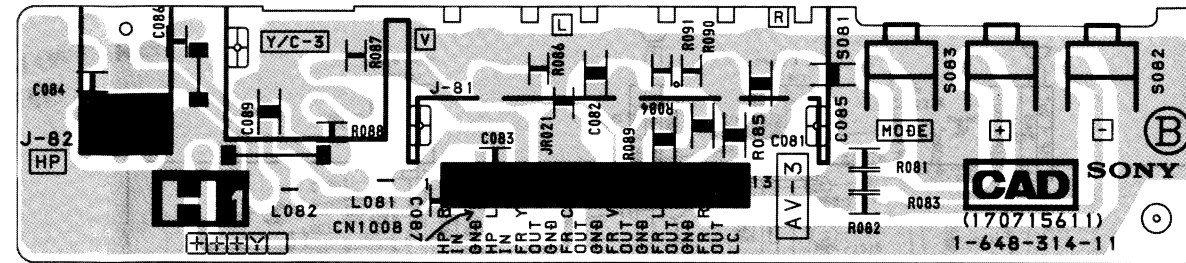
H1 [CONTROL SW, AUDIO OUT
Y - CHROMA OUT, HEADPHONE]

H2 [SIRCS RECEIVER
INDICATOR]

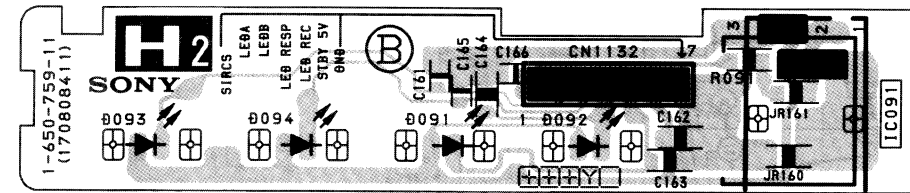
F2 [LINE FILTER,
RELAY SW]

F1 [AC IN POWER SW]

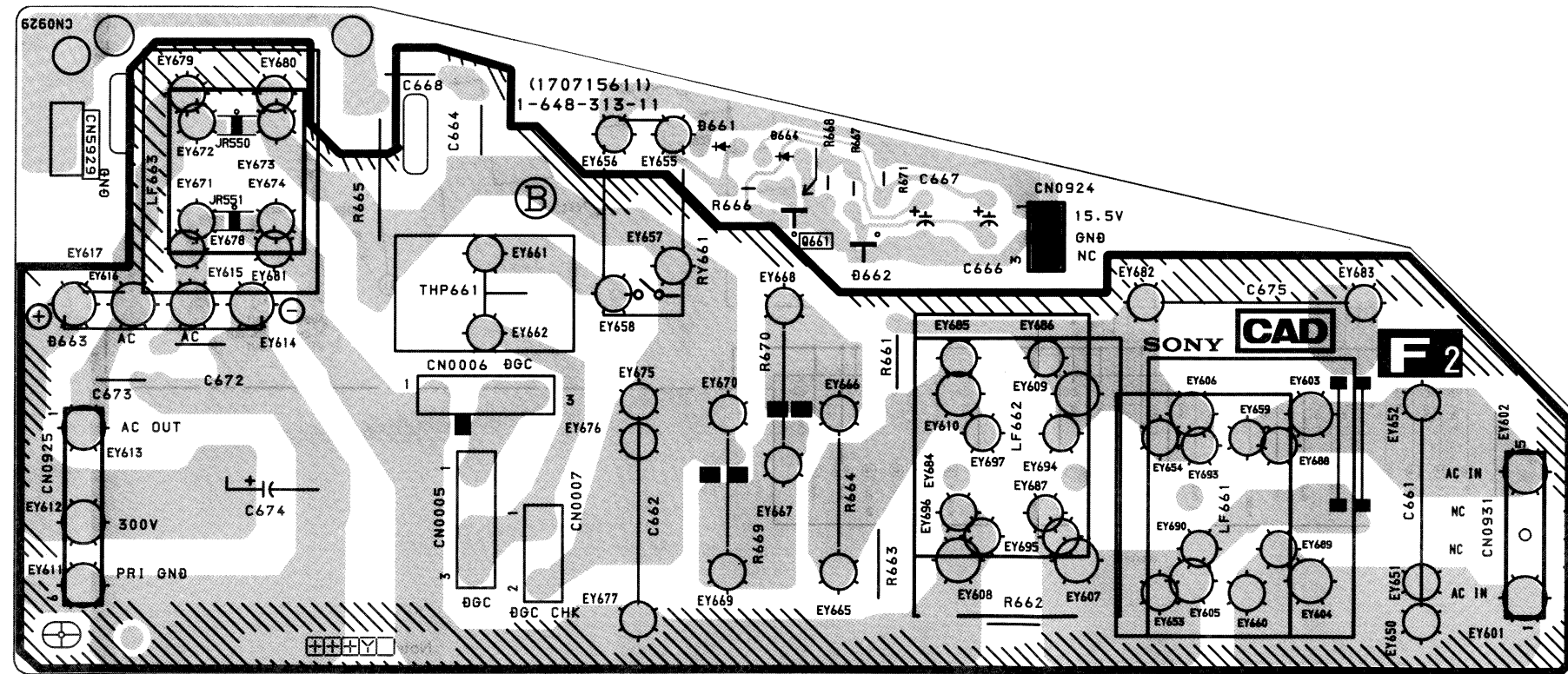
- H1 BOARD -



- H2 BOARD -



- F2 BOARD -

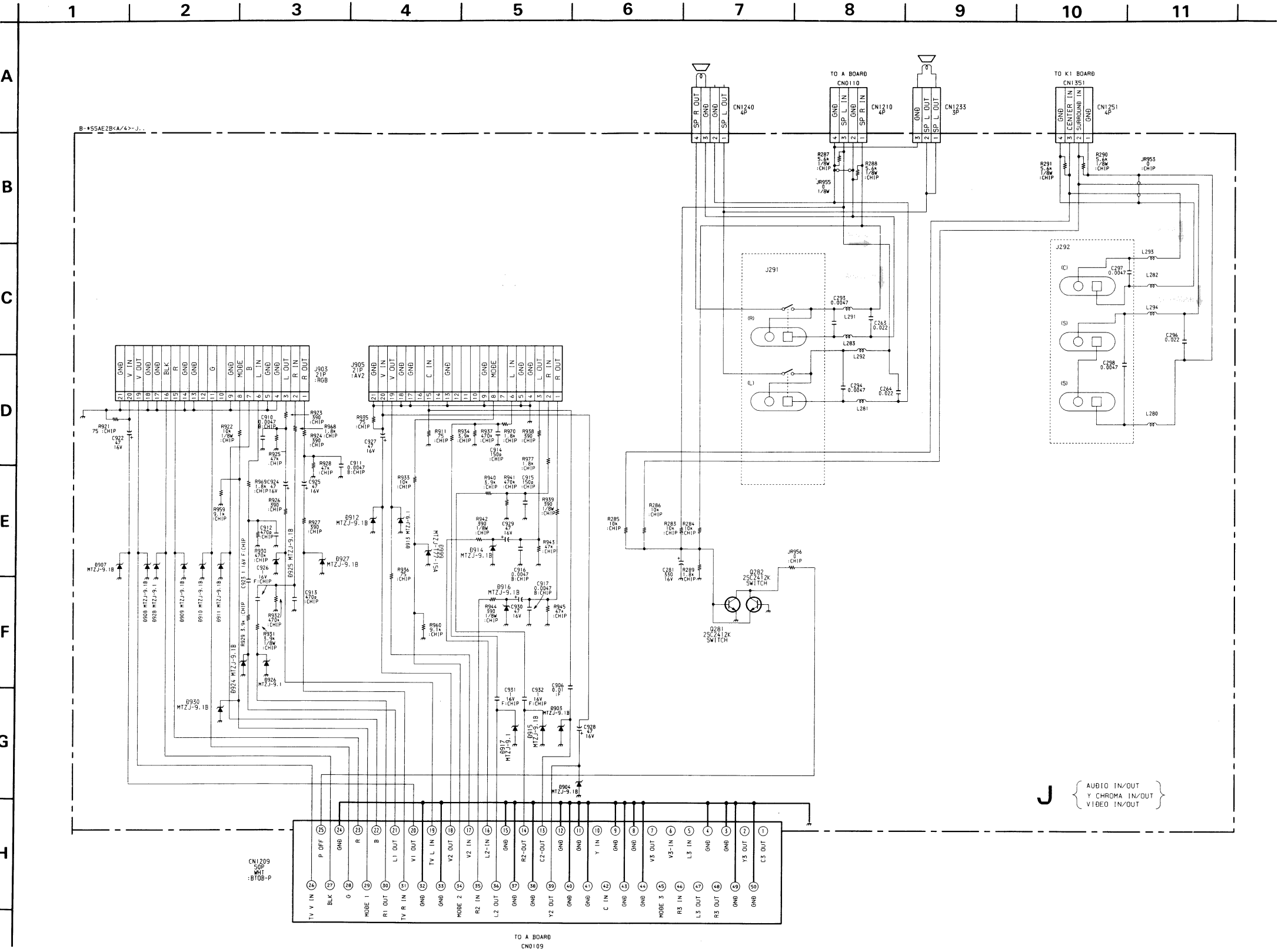


J

AUDIO IN/OUT
Y - CHROMA IN/OUT
VIDEO IN/OUT

A

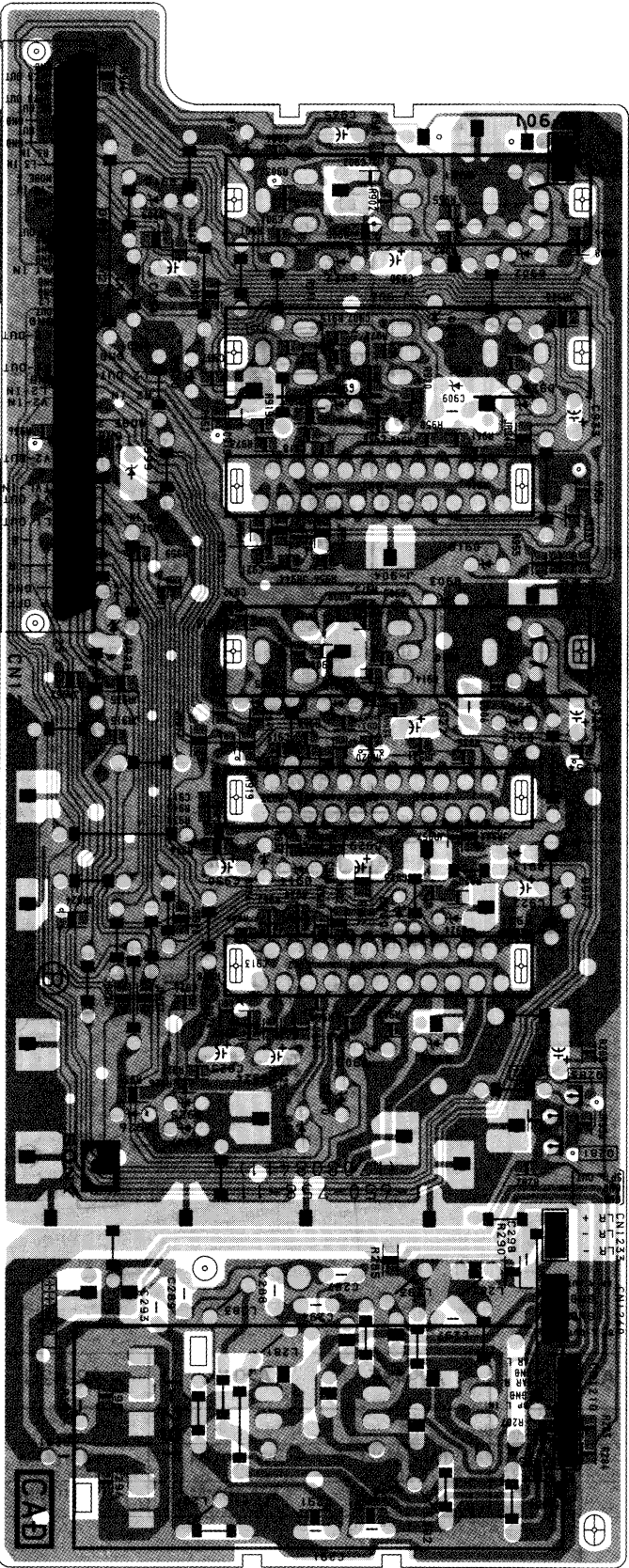
TUNER AUDIO CONTROL,
AV SW, R.G.B. JUNGLE, Y



Note :

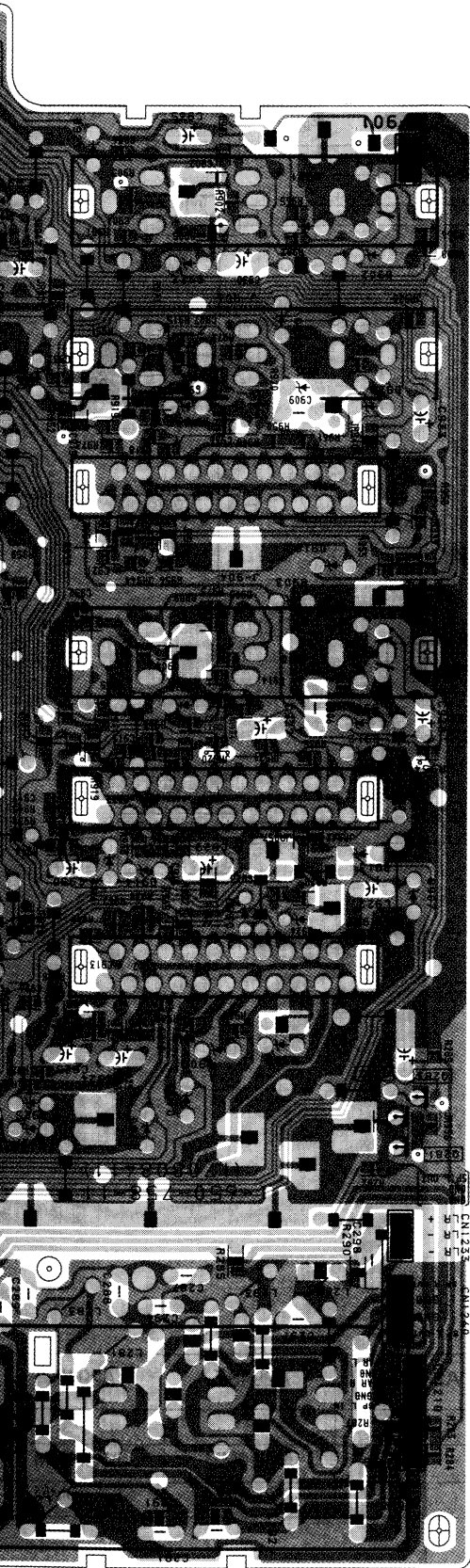
- Pattern from the side which enables seeing.
- Pattern of the rear side.

- J BOARD -



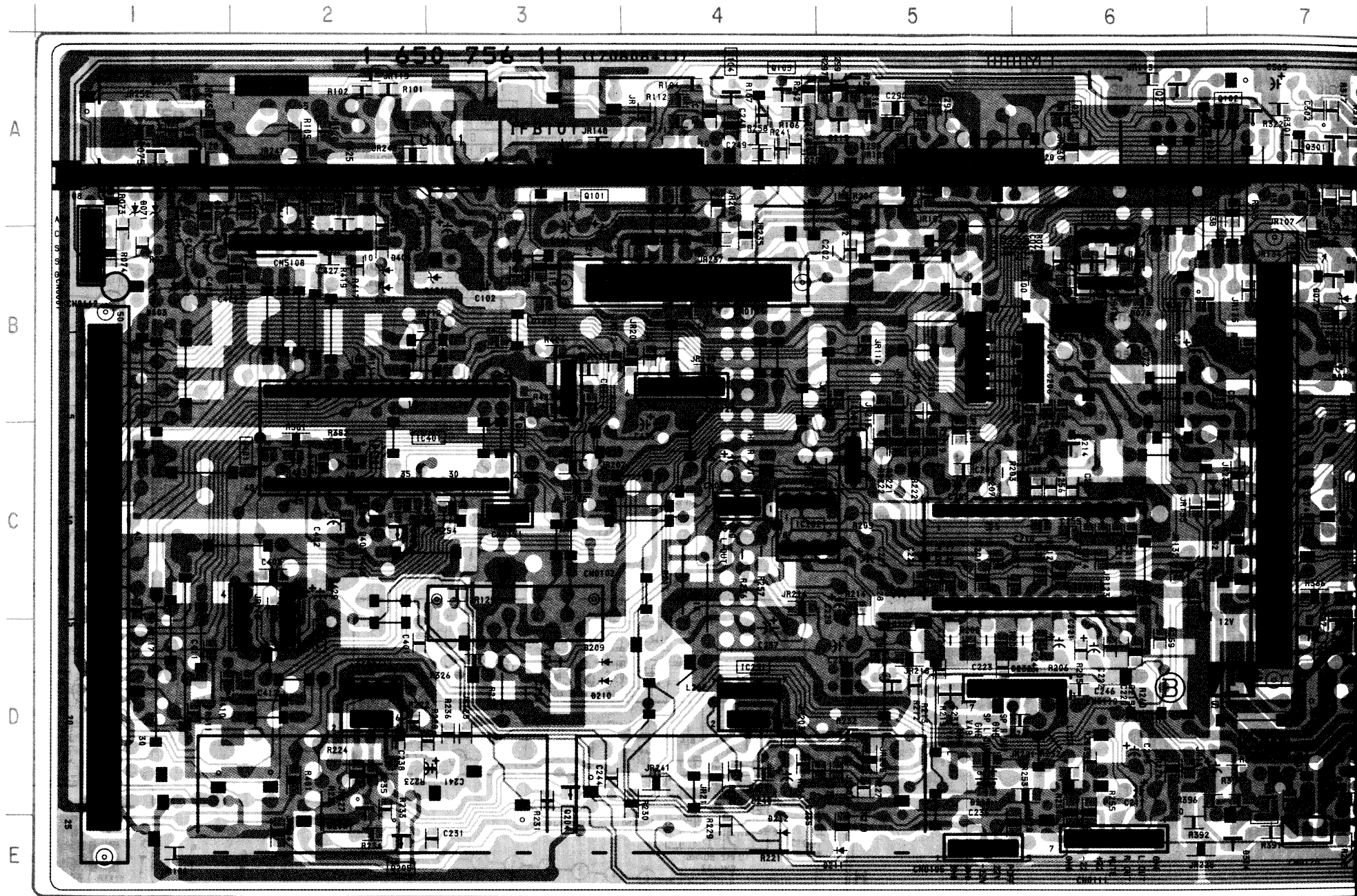
D IN/OUT
HROMA IN/OUT
D IN/OUT

A TUNER AUDIO CONTROL, AUDIO AMP
AV SW, R.G.B. JUNGLE, Y/C PROCESSOR



IC		Q404 B - 3	
IC072	B - 6	Q581	B - 9
IC201	C - 6	Q582	B - 9
IC202	C - 4	Q610	E - 9
IC251	D - 4	Q681	E - 7
IC261	D - 2	Q682	D - 9
IC301	A - 8	DIODE	
IC302	A - 10		
IC304	C - 10	D068	B - 7
IC401	C - 2	D069	A - 1
IC402	D - 2	D071	A - 1
IC681	D - 9	D073	A - 1
IC684	C - 4	D075	A - 1
IC685	E - 8	D077	B - 7
TRANSISTOR		D078	B - 7
Q071	D - 8	D079	B - 7
Q101	A - 3	D101	B - 2
Q102	A - 7	D206	D - 7
Q103	A - 3	D207	E - 7
Q201	D - 5	D208	D - 7
Q202	D - 5	D209	D - 3
Q203	A - 4	D210	D - 3
Q204	D - 3	D211	E - 5
Q205	E - 2	D212	E - 4
Q206	D - 2	D213	D - 5
Q207	B - 6	D214	C - 6
Q209	E - 7	D301	B - 9
Q210	A - 6	D302	A - 9
Q301	A - 7	D304	B - 10
Q302	B - 7	D305	C - 9
Q303	D - 10	D306	D - 10
Q304	D - 10	D307	D - 10
Q305	A - 8	D308	D - 10
Q306	D - 10	D311	C - 9
Q308	C - 9	D312	C - 8
Q309	C - 9	D313	C - 7
Q311	C - 8	D381	C - 8
Q312	C - 8	D401	B - 1
Q313	B - 8	D403	B - 1
Q314	C - 7	D405	A - 1
Q315	D - 7	D406	B - 2
Q401	C - 2	D407	B - 2
Q402	C - 2	D571	B - 9
Q403	C - 2	D681	E - 8
		D683	D - 9

- A BOARD -

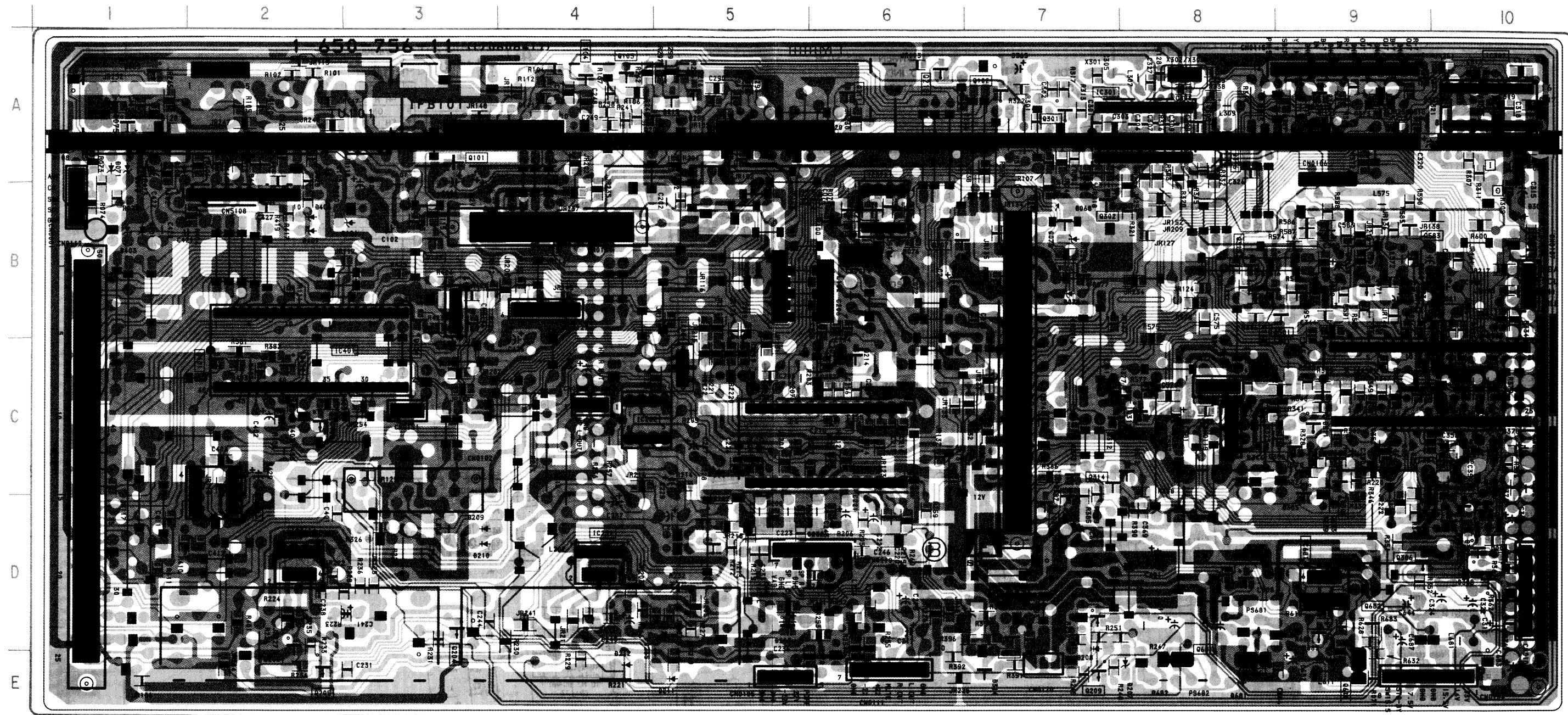


— A BOARD —

404	B - 3
581	B - 9
582	B - 9
610	E - 9
681	E - 7
682	D - 9

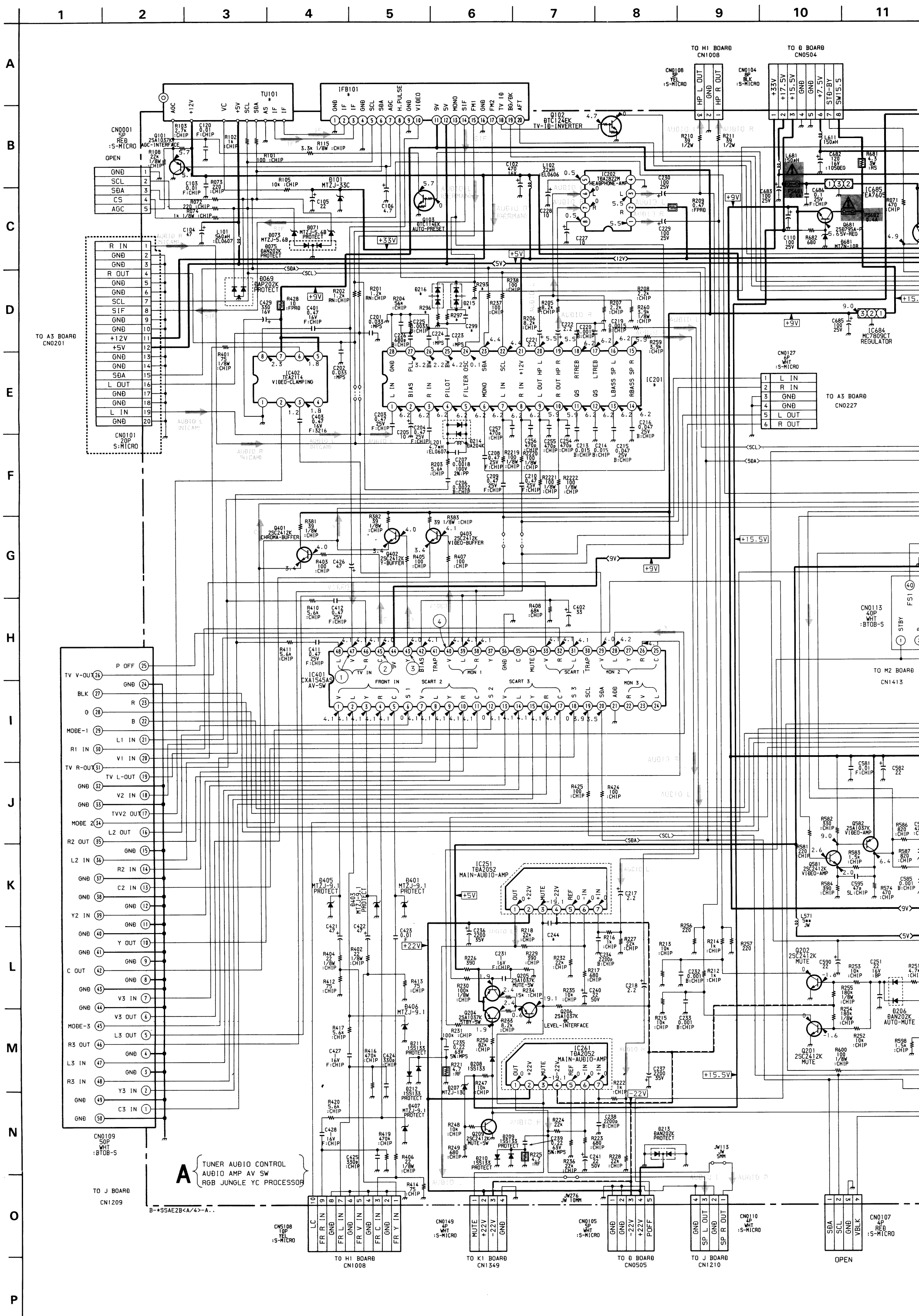
DIODE

68	B - 7
69	A - 1
71	A - 1
73	A - 1
75	A - 1
77	B - 7
78	B - 7
79	B - 7
01	B - 2
06	D - 7
07	E - 7
08	D - 7
09	D - 3
10	D - 3
11	E - 5
12	E - 4
13	D - 5
14	C - 6
01	B - 9
02	A - 9
04	B - 10
05	C - 9
06	D - 10
07	D - 10
08	D - 10
11	C - 9
12	C - 8
13	C - 7
81	C - 8
01	B - 1
03	B - 1
05	A - 1
06	B - 2
07	B - 2
71	B - 9
81	E - 8
83	D - 9

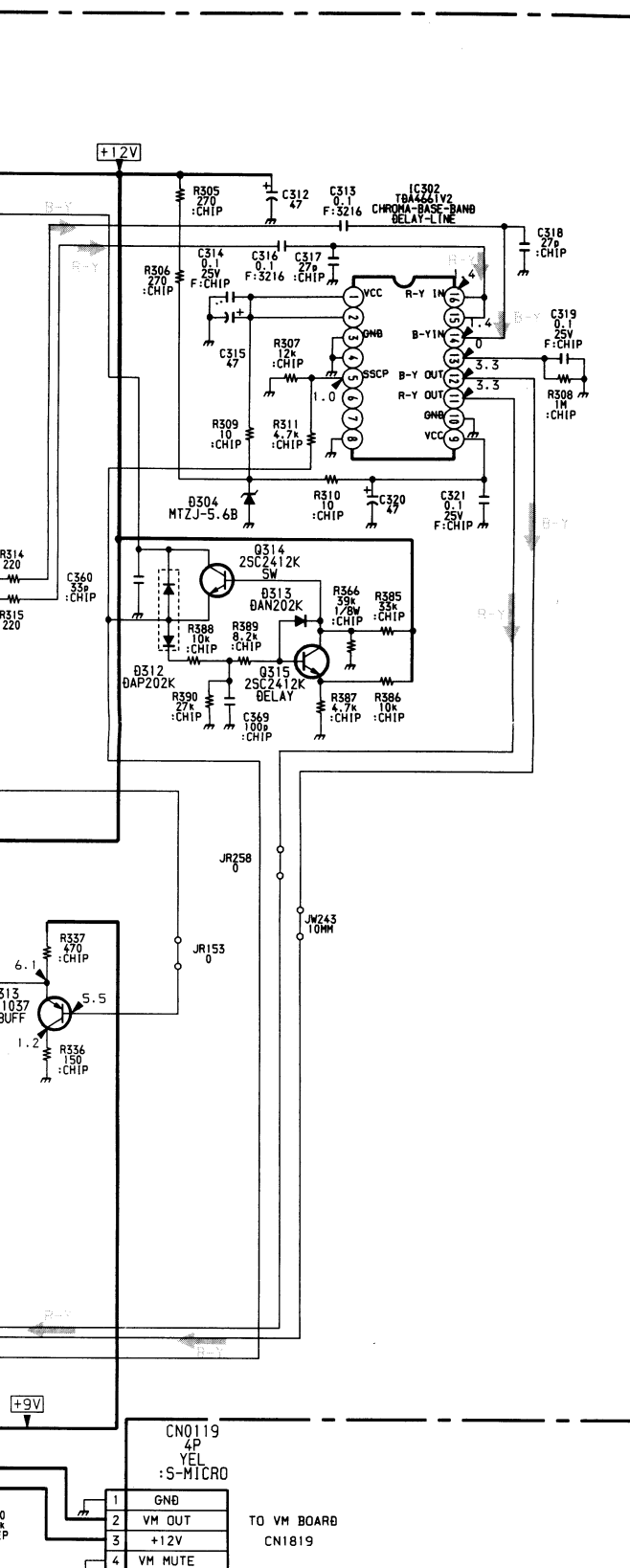


Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.







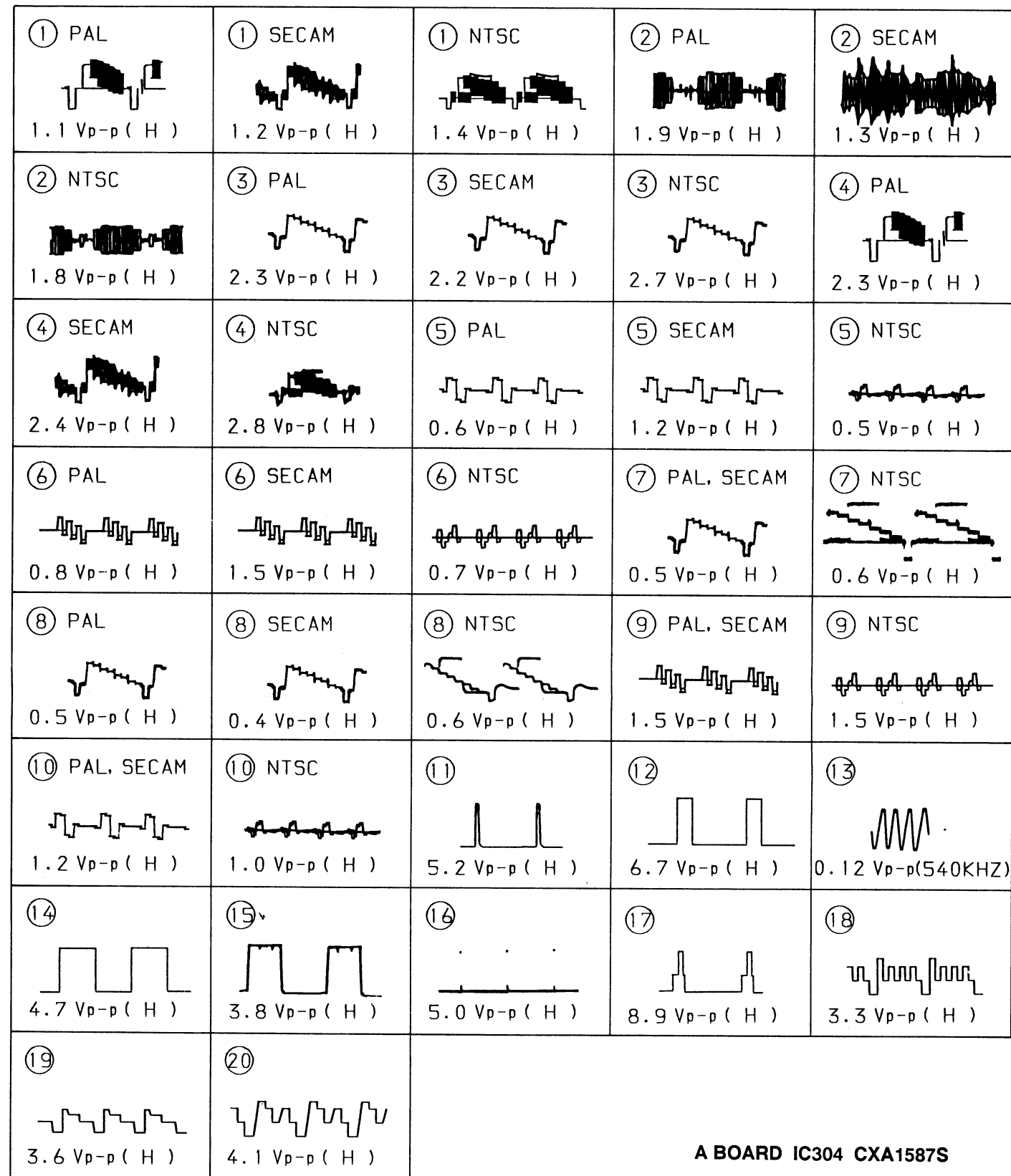
Voltages indicated with the mark ※ on the schematic diagram are shown in the table below.

A BOARD

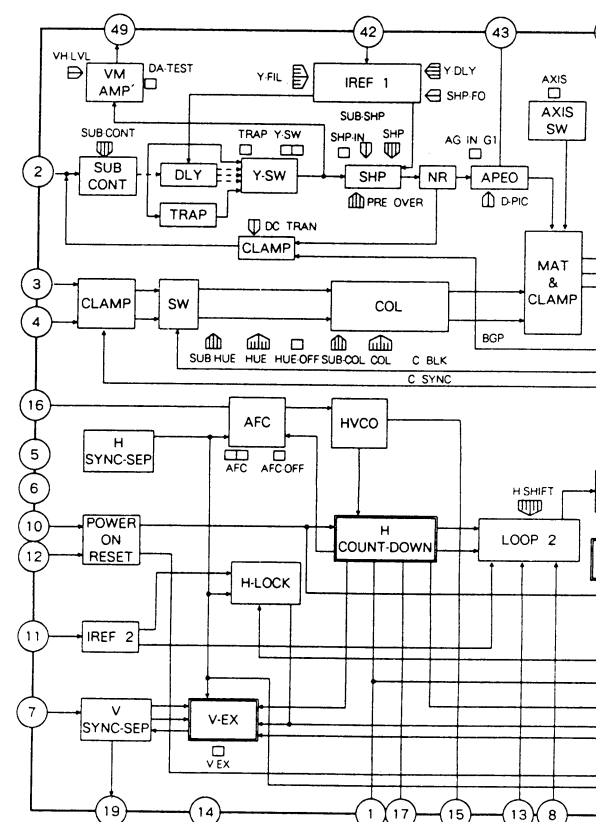
	PAL	SECAM	NTSC3.58	NTSC4.43
IC301 (13)	0.0	0.0	4.8	4.9
(15)	0.0	5.0	5.0	0.0
(17)	4.7	4.2	3.6	4.1
(18)	4.8	4.4	4.6	4.8
Q301(B)	0.0	0.0	0.0	1.6
(C)	5.5	5.5	5.5	0.1
Q305(B)	0.0	5.5	5.5	0.0
(C)	0.0	0.0	0.0	1.6

A BOARD * MARK

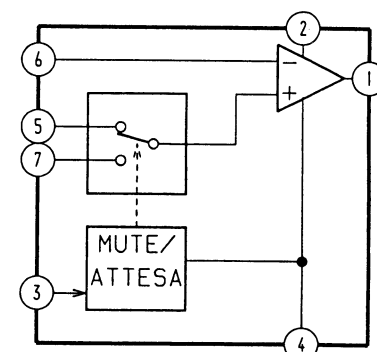
Ref	A2941A	A2941B	A2941D	A2943E	A2941K	A2942U
C244	1MF	1MF	1MF	1MF	1MF	0.01MF
C299	2.2MF	1MF	2.2MF	2.2MF	2.2MF	2.2MF
C333	-	470PF	-	-	-	-
D215	-	DAN204K	-	-	-	-
D216	-	DAN204K	-	-	-	-
IC201	TDA6612	TDA6612	TDA6612	TDA6612	TDA6612	TDA6622
IFB101	IFH-389	IFH-389F	IFH-389	IFH-389	IFH-389	IFH-395
R293	-	12K	-	-	-	-
R296	-	330	-	-	-	-
R297	-	120	-	-	-	-
R326	-	0	-	-	-	-
TU101	UV916H	UV916H	UV916H	UV916H	UV916H	U944C



A BOARD IC304 CXA1587S



A BOARD IC251/261 TDA2052



RMS A BOARD

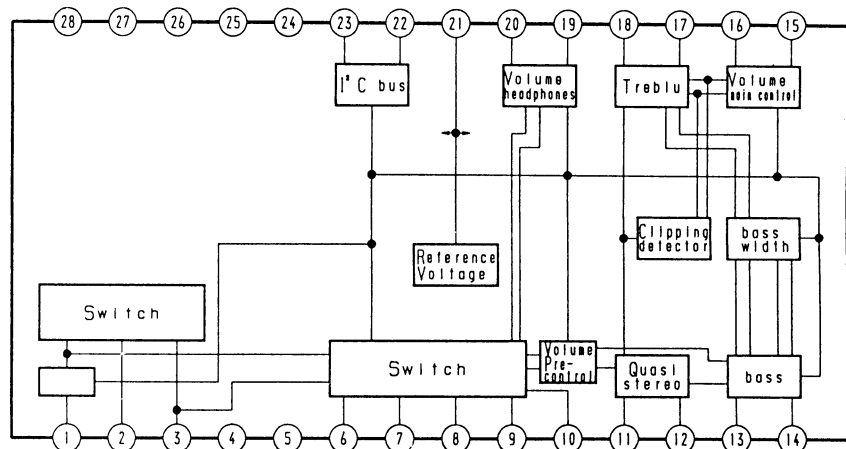
L -p (H)	① SECAM 1.2 Vp-p (H)	① NTSC 1.4 Vp-p (H)	② PAL 1.9 Vp-p (H)	② SECAM 1.3 Vp-p (H)
SC -p (H)	③ PAL 2.3 Vp-p (H)	③ SECAM 2.2 Vp-p (H)	③ NTSC 2.7 Vp-p (H)	④ PAL 2.3 Vp-p (H)
CAM -p (H)	④ NTSC 2.8 Vp-p (H)	⑤ PAL 0.6 Vp-p (H)	⑤ SECAM 1.2 Vp-p (H)	⑤ NTSC 0.5 Vp-p (H)
L -p (H)	⑥ SECAM 1.5 Vp-p (H)	⑥ NTSC 0.7 Vp-p (H)	⑦ PAL, SECAM 0.5 Vp-p (H)	⑦ NTSC 0.6 Vp-p (H)
L -p (H)	⑧ SECAM 0.4 Vp-p (H)	⑧ NTSC 0.6 Vp-p (H)	⑨ PAL, SECAM 1.5 Vp-p (H)	⑨ NTSC 1.5 Vp-p (H)
AL, SECAM -p (H)	⑩ NTSC 1.0 Vp-p (H)	⑪ 5.2 Vp-p (H)	⑫ 6.7 Vp-p (H)	⑬ 0.12 Vp-p(540KHZ)
-p (H)	⑮ 3.8 Vp-p (H)	⑯ 5.0 Vp-p (H)	⑰ 8.9 Vp-p (H)	⑱ 3.3 Vp-p (H)
-p (H)	⑳ 4.1 Vp-p (H)			

indicated with the mark ※
Schematic diagram are shown
e below.

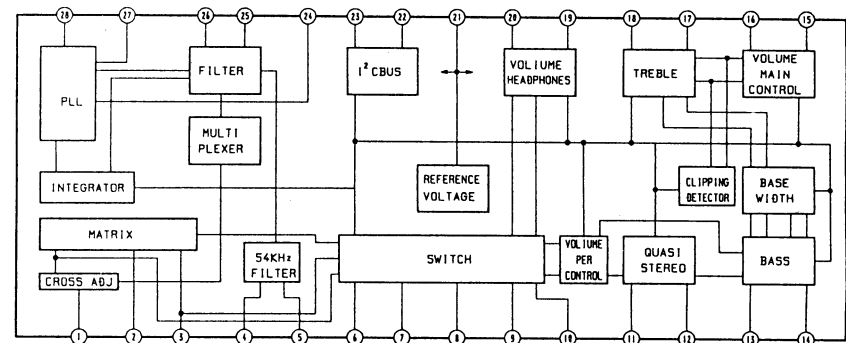
PAL	SECAM	NTSC3.58	NTSC4.43
0.0	0.0	4.8	4.9
0.0	5.0	5.0	0.0
4.7	4.2	3.6	4.1
4.8	4.4	4.6	4.8
0.0	0.0	0.0	1.6
5.5	5.5	5.5	0.1
0.0	5.5	5.5	0.0
0.0	0.0	0.0	1.6

A2941B	A2941D	A2943E	A2941K	A2942U
1MF	1MF	1MF	1MF	0.01MF
1MF	2.2MF	2.2MF	2.2MF	2.2MF
470PF	-	-	-	-
DAN204K	-	-	-	-
DAN204K	-	-	-	-
TDA6612	TDA6612	TDA6612	TDA6612	TDA6622
IFH-389F	IFH-389	IFH-389	IFH-389	IFH-395
12K	-	-	-	-
330	-	-	-	-
120	-	-	-	-
0	-	-	-	-
UV916H	UV916H	UV916H	UV916H	U944C

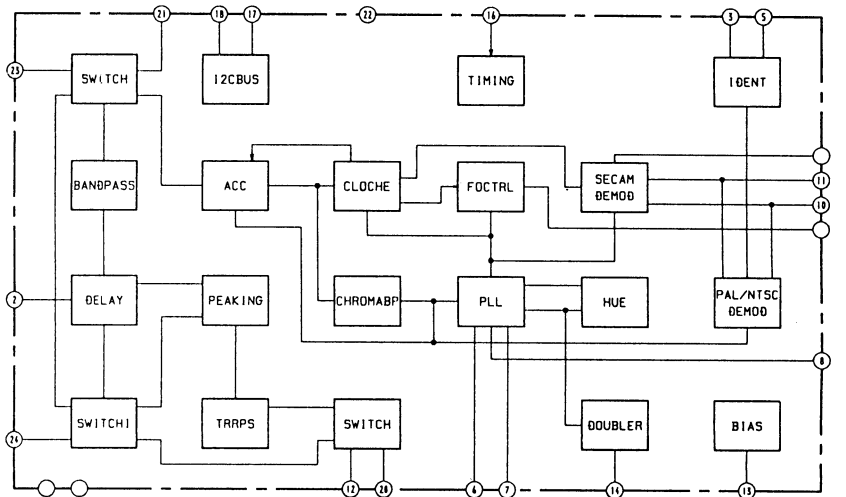
A BOARD IC201 TDA6622 (UK Model only)



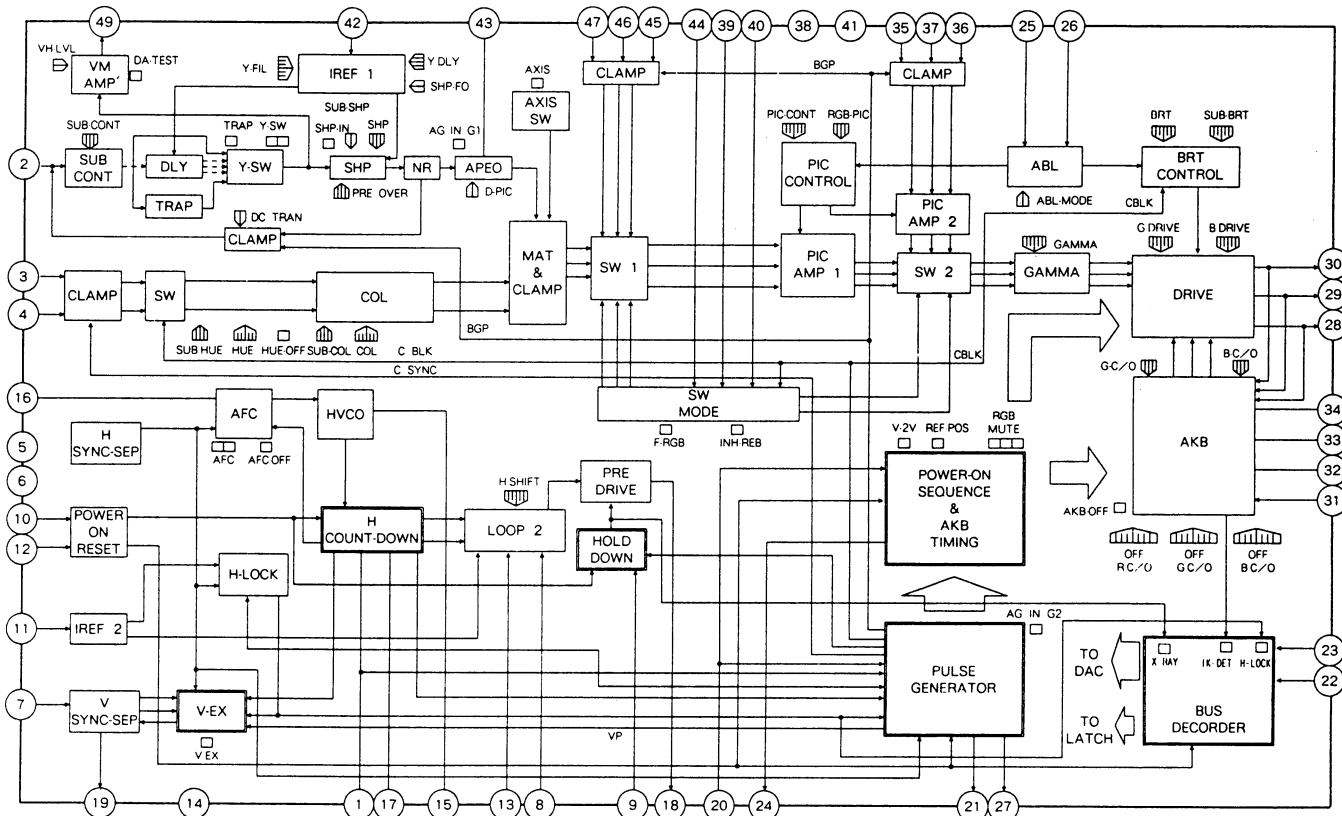
A BOARD IC201 TDA6612



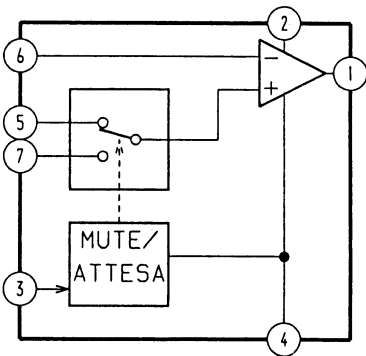
A BOARD IC301 TDA9145/N2B



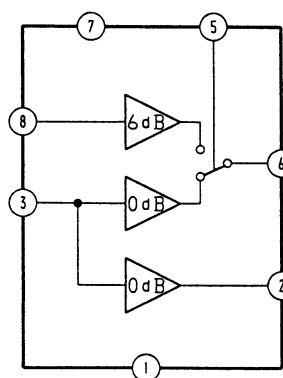
A BOARD IC304 CXA1587S



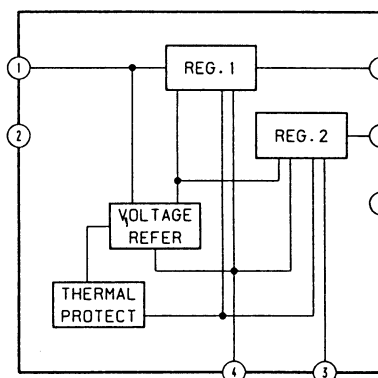
A BOARD IC251/261 TDA2052



A BOARD IC402 TEA2114

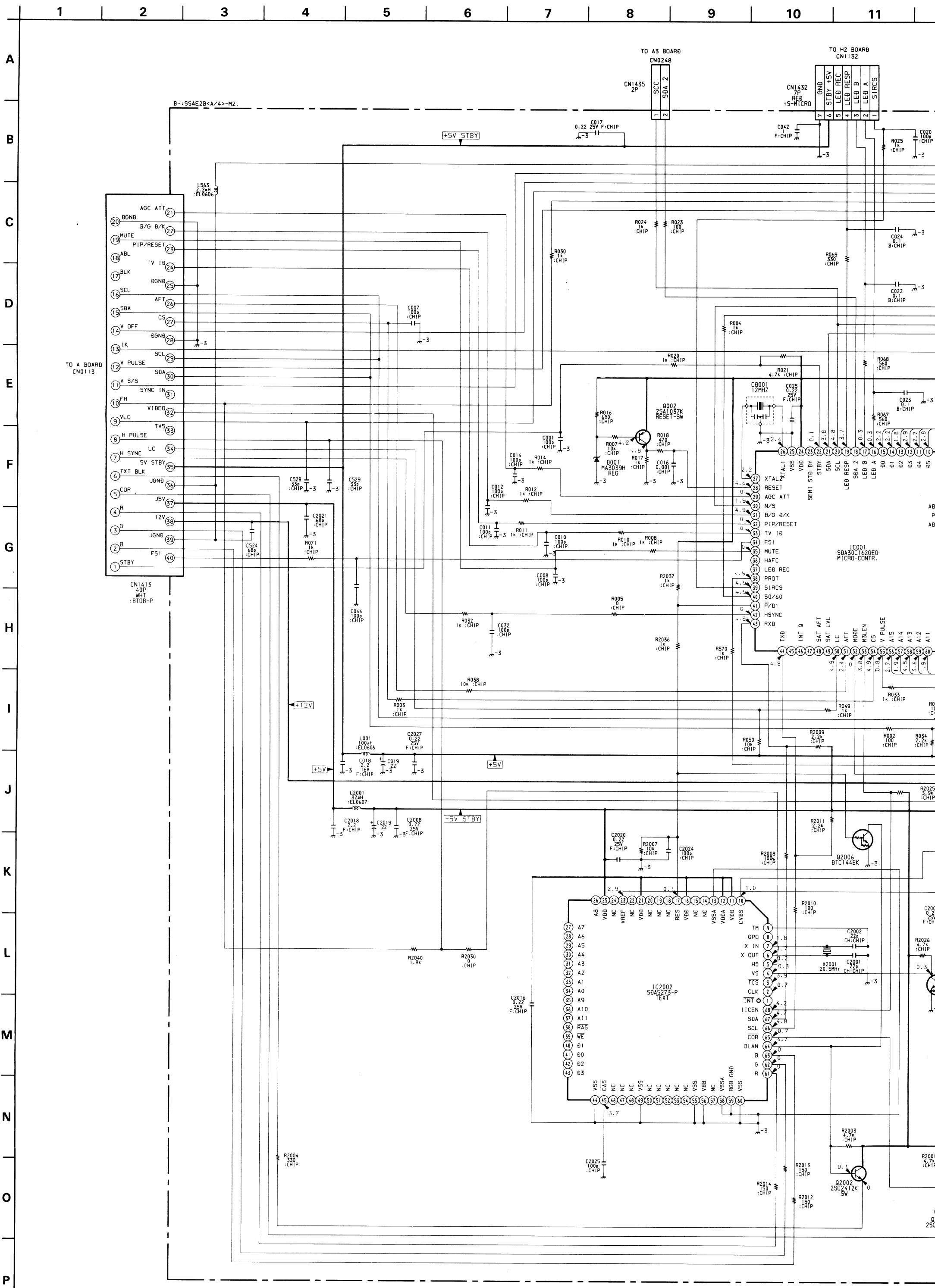


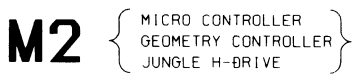
A BOARD IC681 TDA8138A



[illegible]

TO A BOARD
CN0113





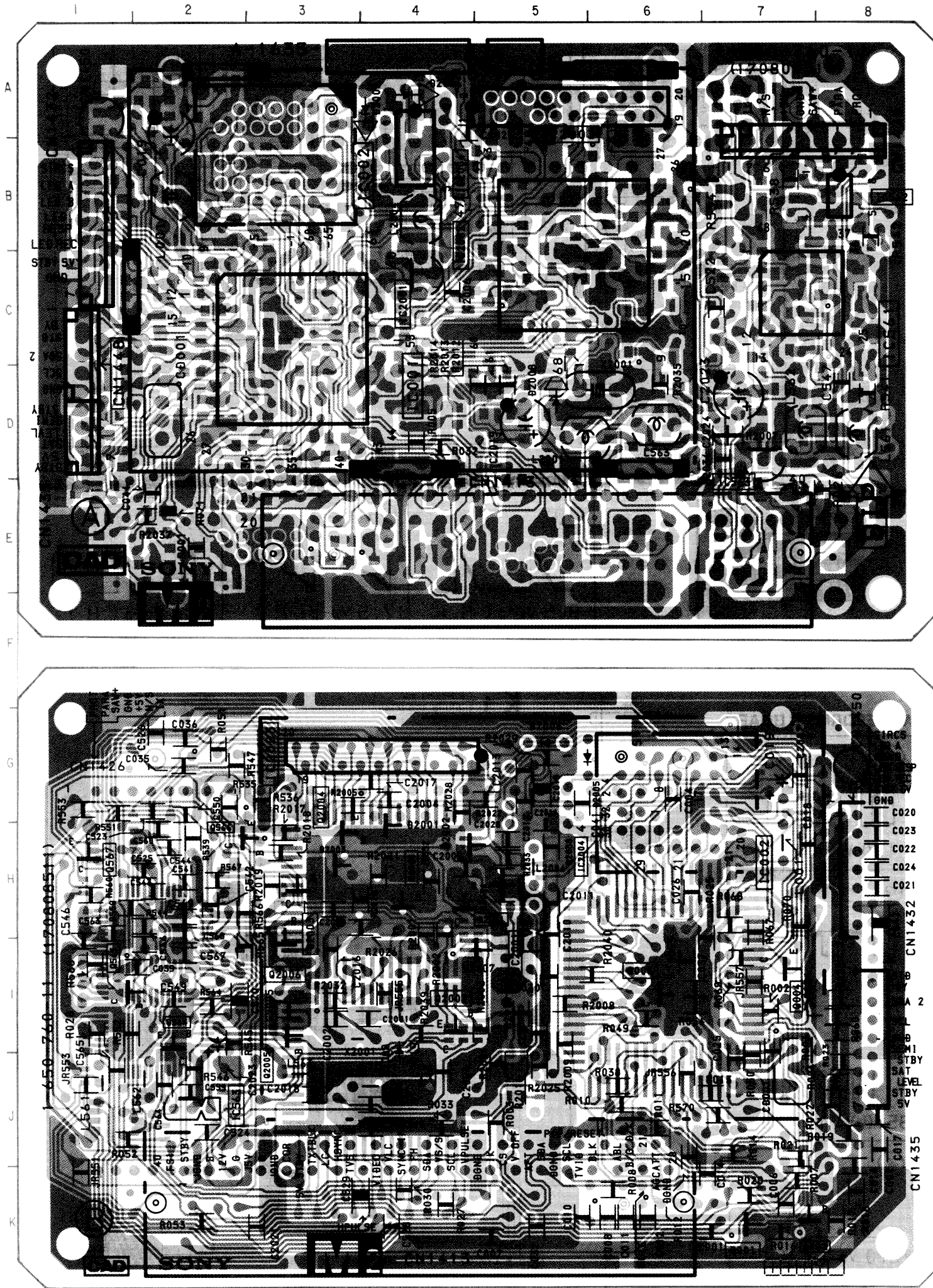
M2

MICRO CONTROLLER,
GEOMETRY CONTROLLER,
JUNGLE, H - DRIVE

D

H/V OUT, PIN OUT,
POWER SUPPLY

- M2 BOARD -

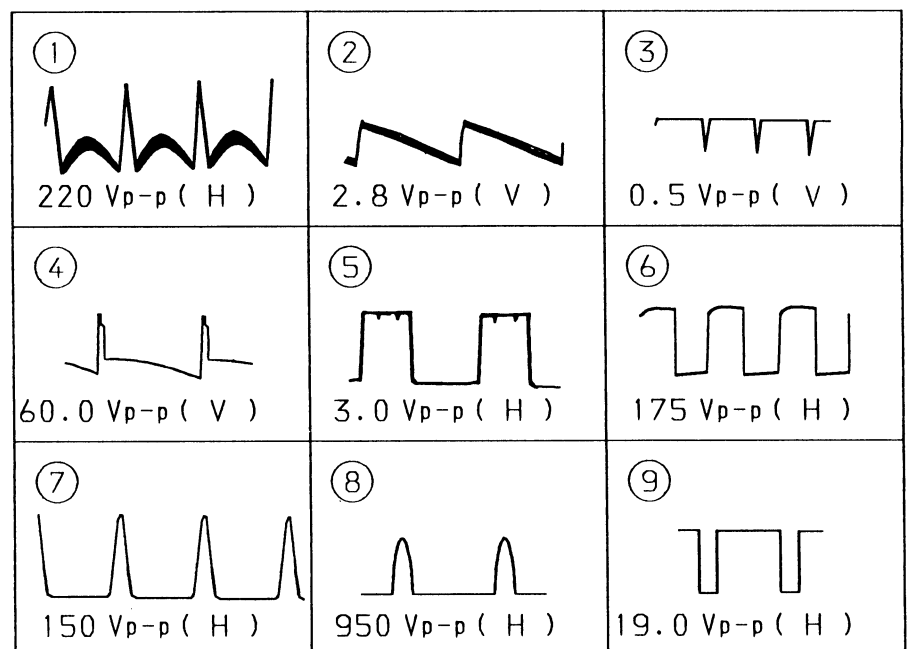


IC	
IC001	C - 4
IC002	B - 3, H - 7
IC561	C - 8
IC562	B - 8
IC563	D - 7, J - 3
IC2001	C - 4, I - 5
IC2002	C - 5
IC2003	B - 5, G - 3
IC2004	B - 4, H - 5
TRANSISTOR	
Q002	K - 7
Q003	I - 6
Q564	I - 2
Q565	I - 1
Q566	G - 2
Q567	H - 1
Q2001	H - 5
Q2002	I - 4
Q2003	H - 3
Q2005	J - 3
Q2006	I - 3
Q2008	H - 4
DIODE	
D001	K - 7
D2001	G - 4
D2002	H - 4
D2003	H - 3

Note :

- Pattern from the side which enables seeing.
- Pattern of the rear side.

WAVEFORMS D BOARD

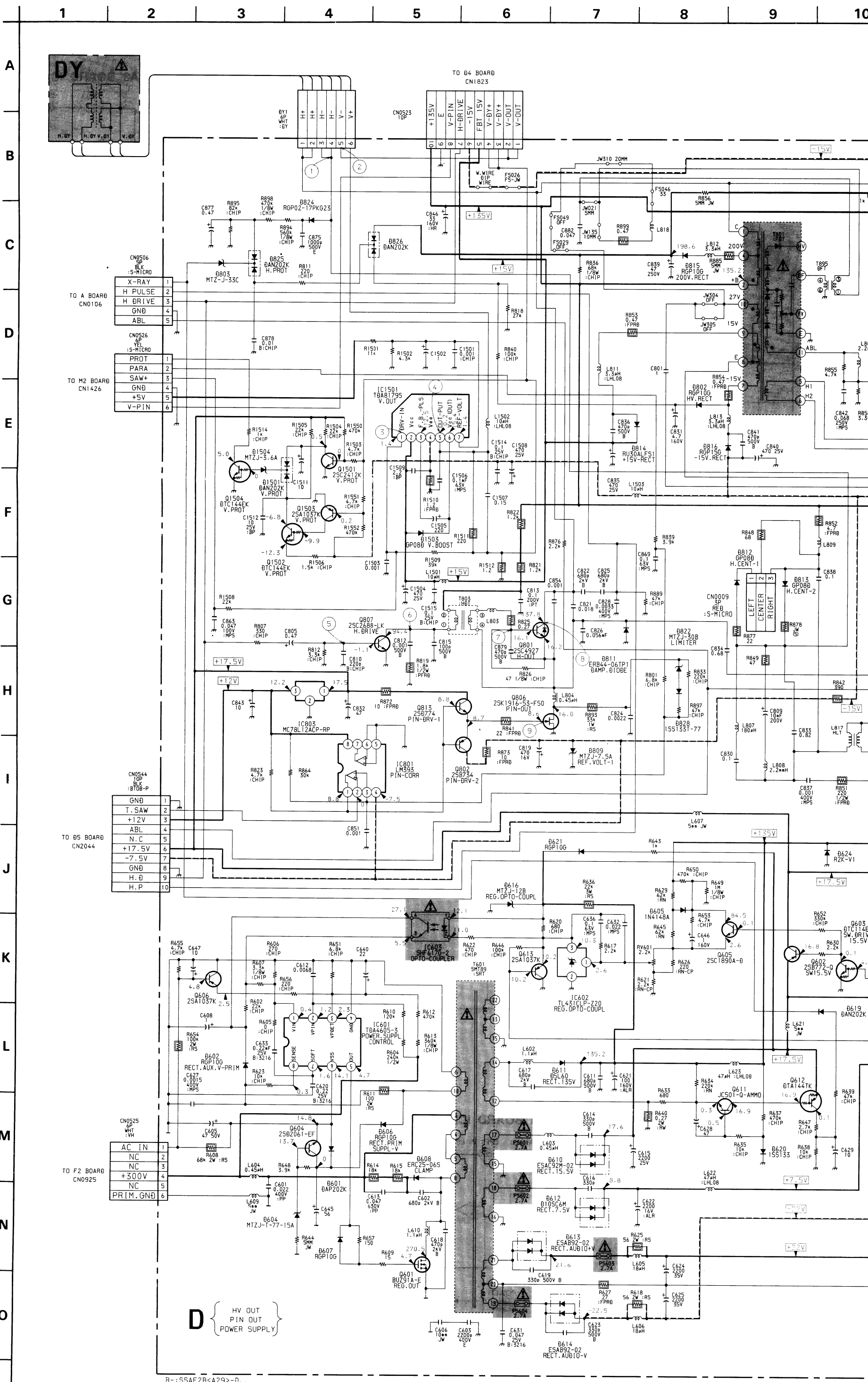


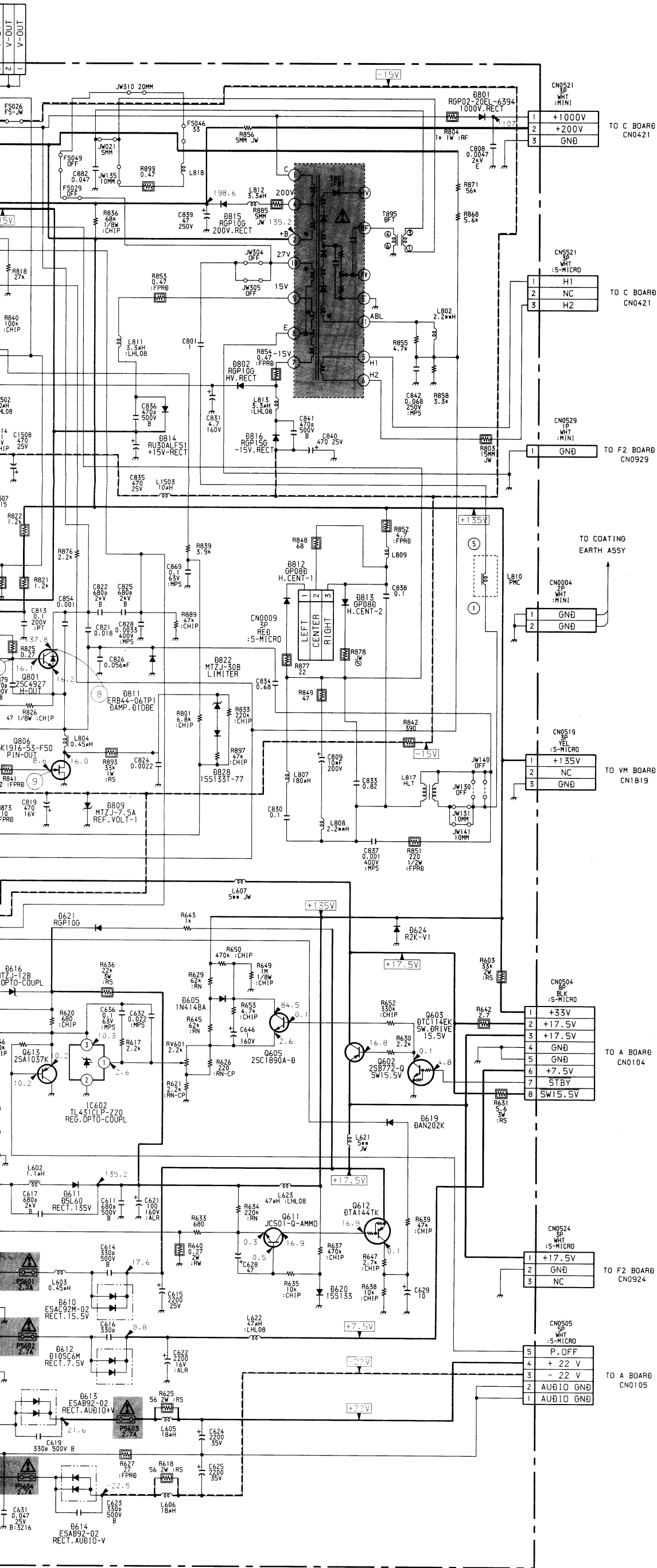
IC	
C001	C - 4
C002	B - 3, H - 7
C561	C - 8
C562	B - 8
C563	D - 7, J - 3
C2001	C - 4, I - 5
C2002	C - 5
C2003	B - 5, G - 3
C2004	B - 4, H - 5

TRANSISTOR	
Q002	K - 7
Q003	I - 6
Q564	I - 2
Q565	I - 1
Q566	G - 2
Q567	H - 1
Q2001	H - 5
Q2002	I - 4
Q2003	H - 3
Q2005	J - 3
Q2006	I - 3
Q2008	H - 4

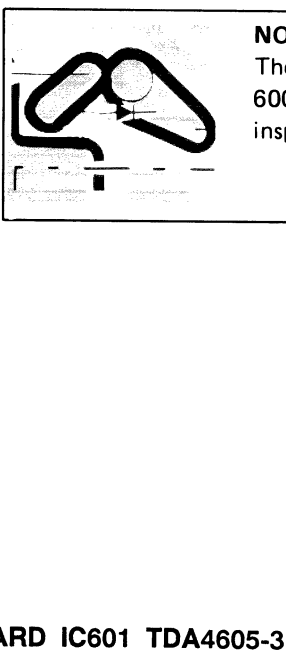
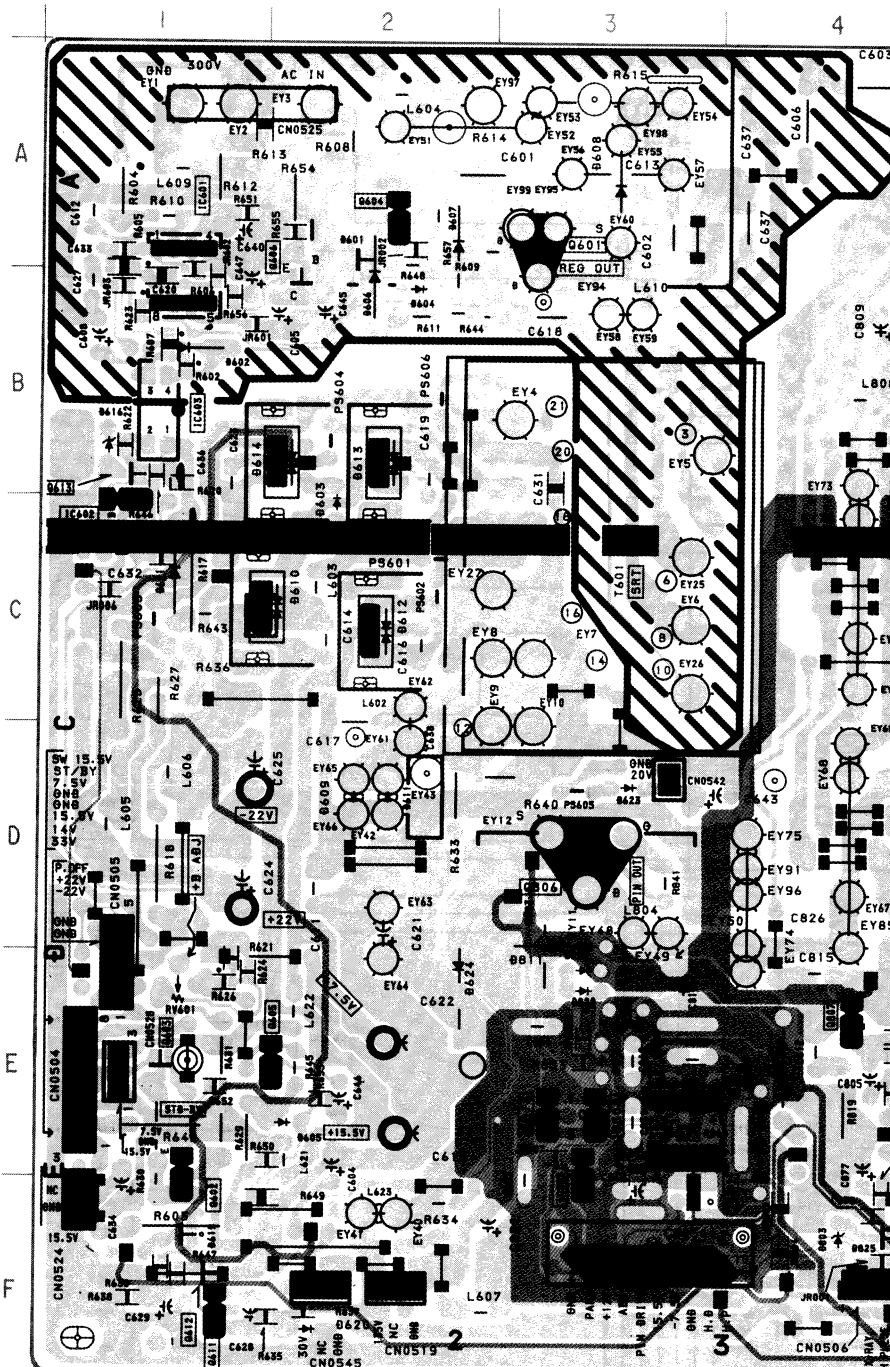
DIODE	
D001	K - 7
D2001	G - 4
D2002	H - 4
D2003	H - 3

③	0.5 V _{p-p} (V)
⑥	175 V _{p-p} (H)
⑨	9.0 V _{p-p} (H)





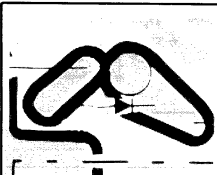
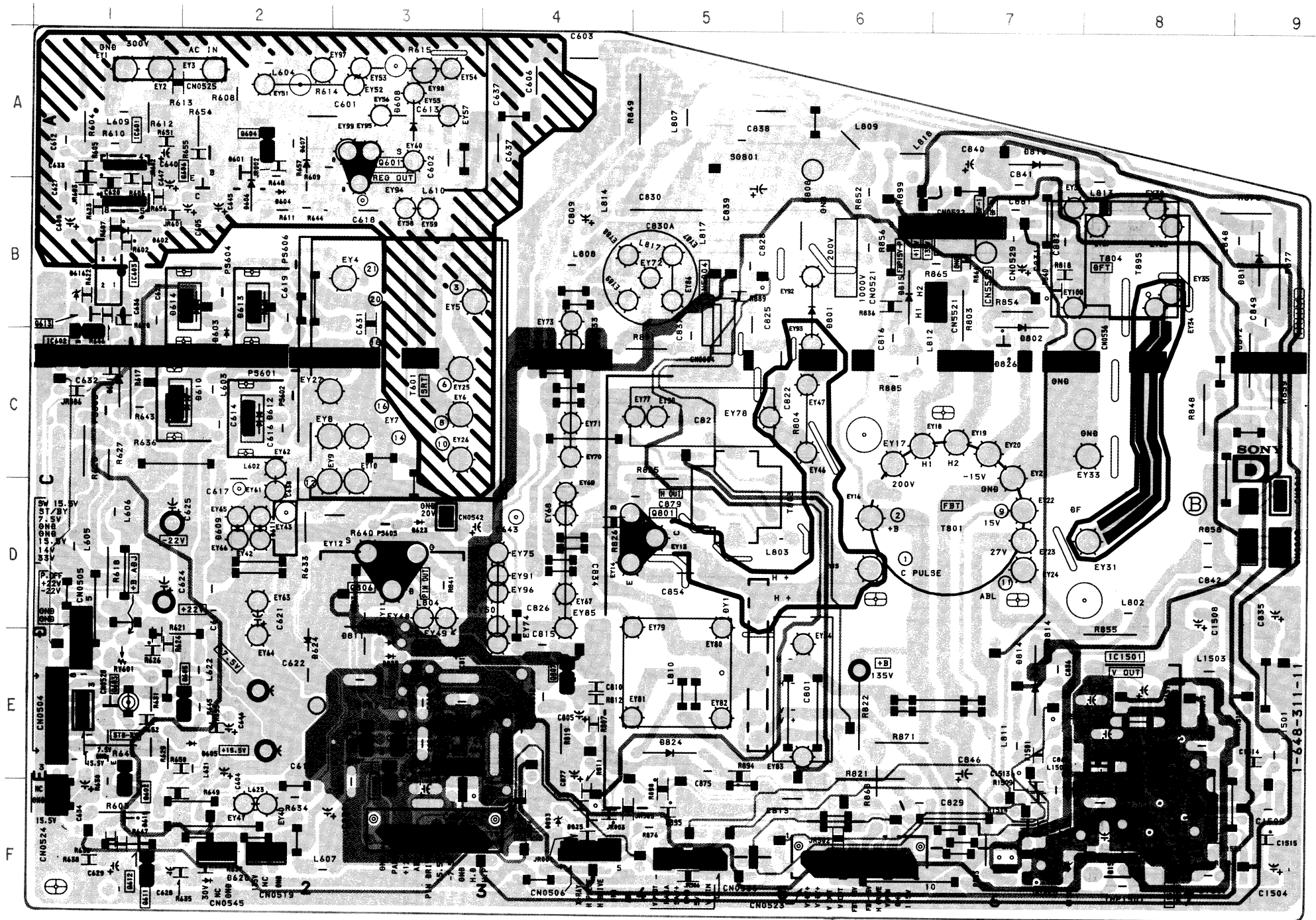
- D BOARD -



NOTE:
The circuit indicated as left contains high voltage of o
600 Vp-p. Care must be paid to prevent an electric shock
inspection or repairing.

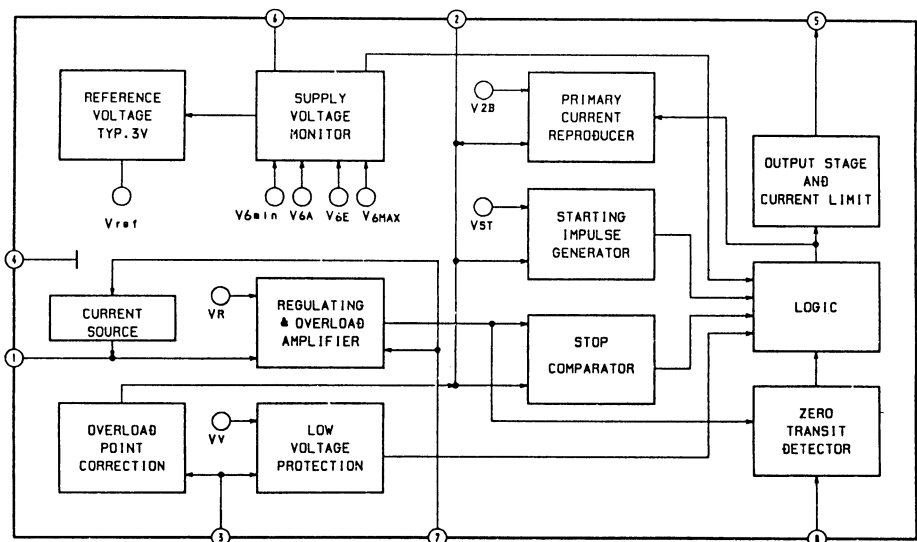
- D BOARD -

Note :
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

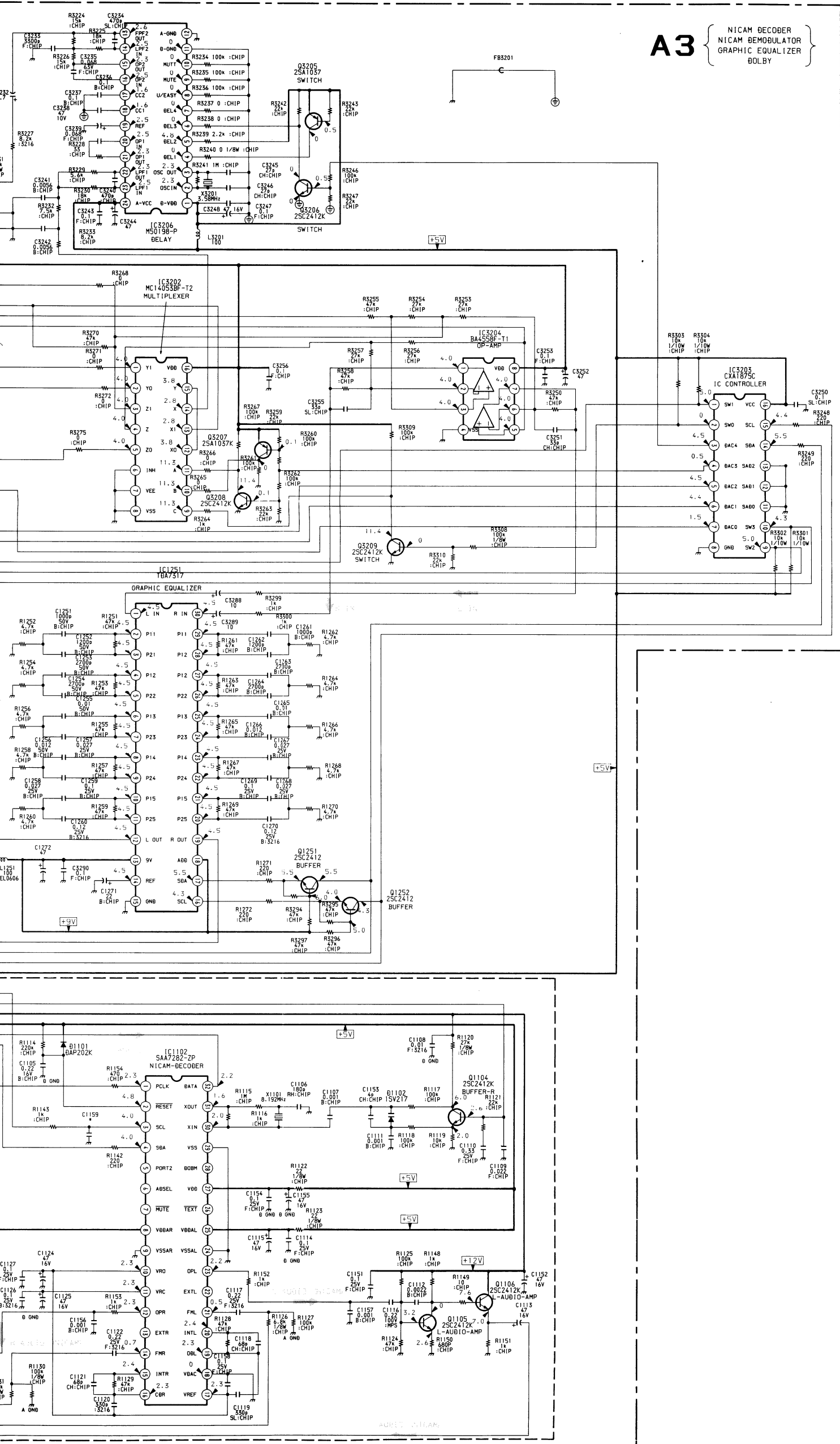


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

D BOARD IC601 TDA4605-3



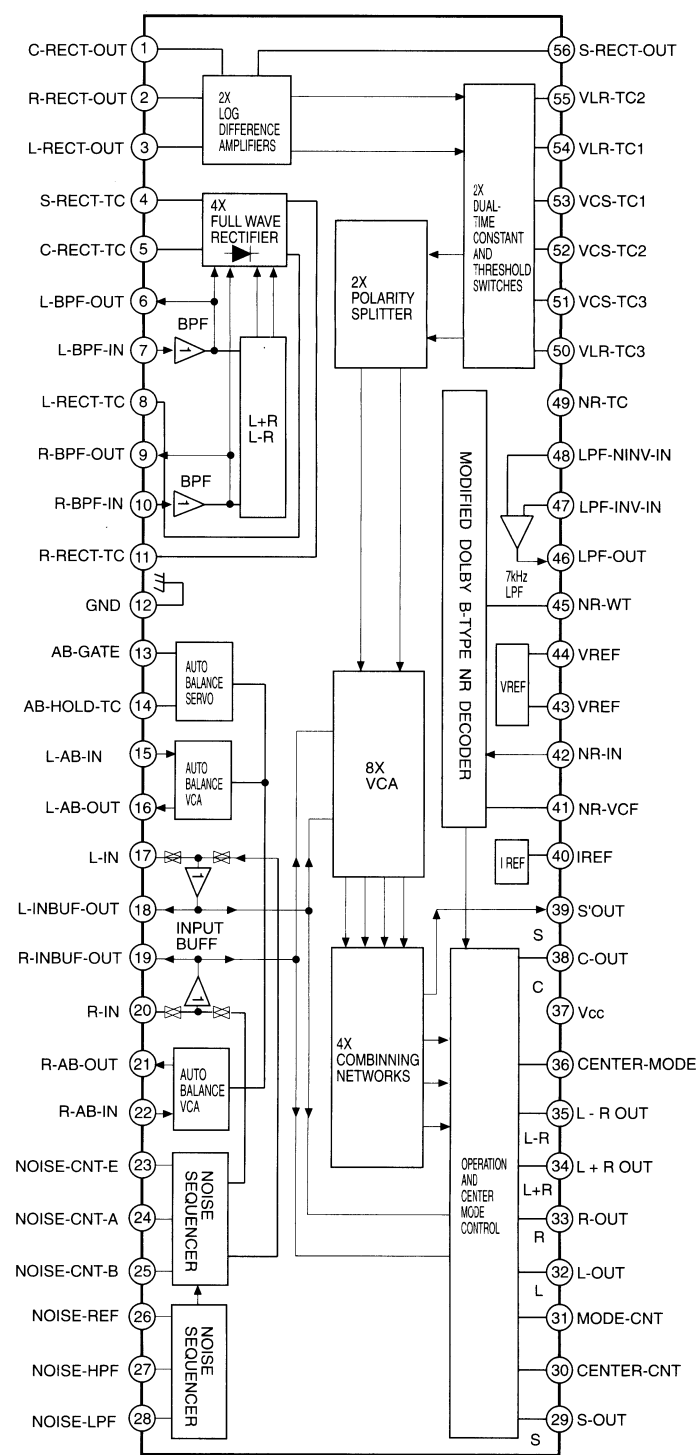
IC		D607	A - 2
IC601	A - 1	D608	A - 3
IC602	C - 1	D610	C - 2
IC603	B - 1	D611	D - 2
IC801	E - 3	D612	C - 2
IC803	F - 3	D613	B - 2
IC1501	E - 8	D614	B - 2
TRANSISTOR		D616	B - 1
		D619	F - 1
		D620	F - 2
		D621	C - 1
		D624	E - 2
		D801	B - 6
		D802	B - 7
		D803	F - 4
		D809	E - 3
		D811	D - 3
		D812	C - 9
		D813	B - 9
		D814	E - 7
		D815	B - 6
		D816	A - 7
		D822	E - 3
		D824	E - 5
		D825	F - 4
		D826	C - 7
		D828	E - 3
		D1501	F - 8
		D1503	F - 8
		D1504	F - 7
DIODE		VARIABLE RESISTOR	
D601	A - 2		
D602	B - 1		
D604	B - 2		
D605	E - 2		
D606	B - 2	RV601	E - 1



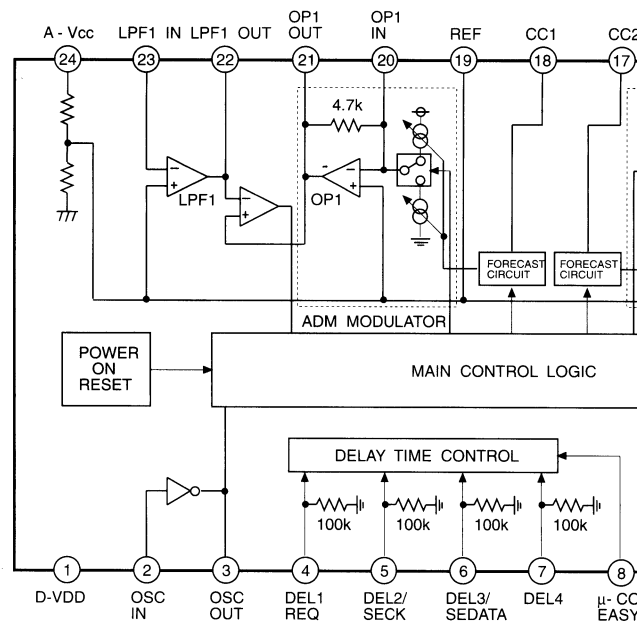
A3 BOARD * MARK

Model	KV-A2943E	KV-A2942U
BP1101	5.850MHz	6.552MHz
C1159	-	47P
CF1101	-	6.0MHz
CF1102	5.5MHz	-
JR1101	0 : CHIP	-
L1105	-	15Mmh
X1102	11.700MHz	13.104MHz

A3 BOARD IC3201 M69032P



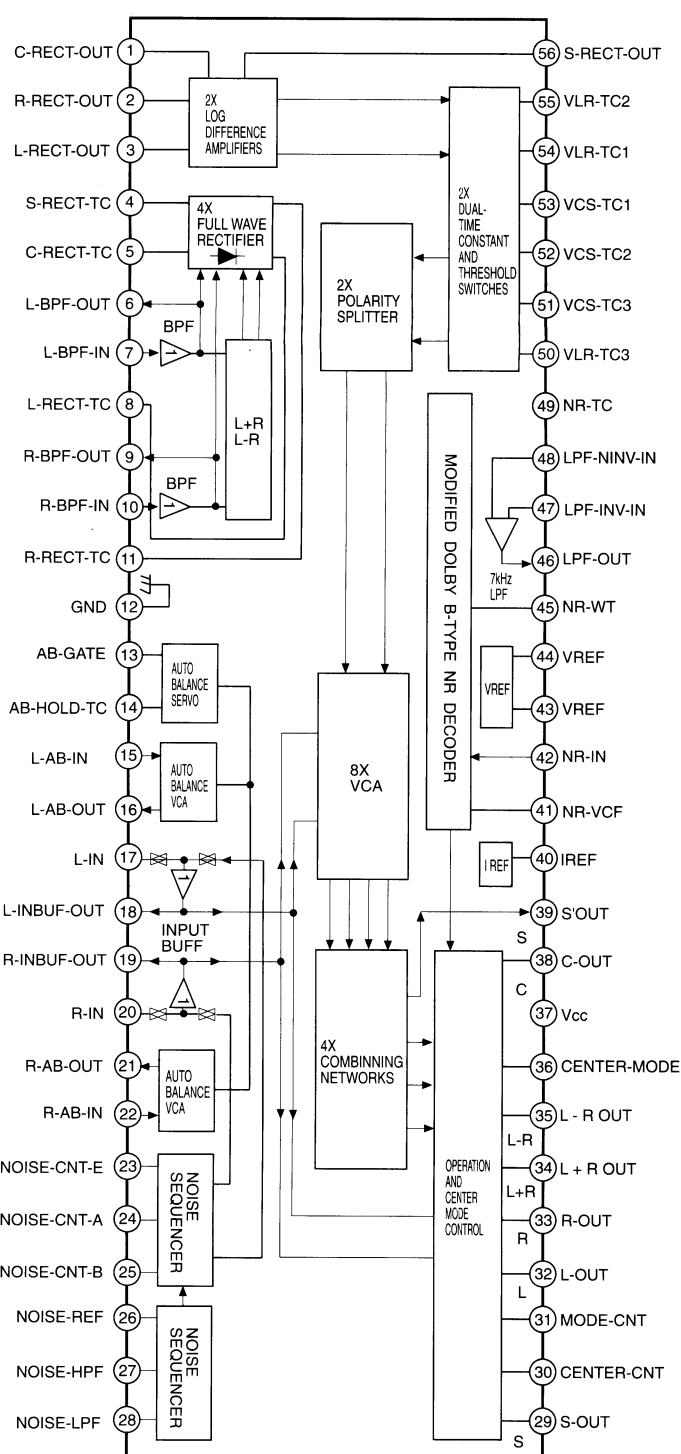
A3 BOARD IC3206 M50198P



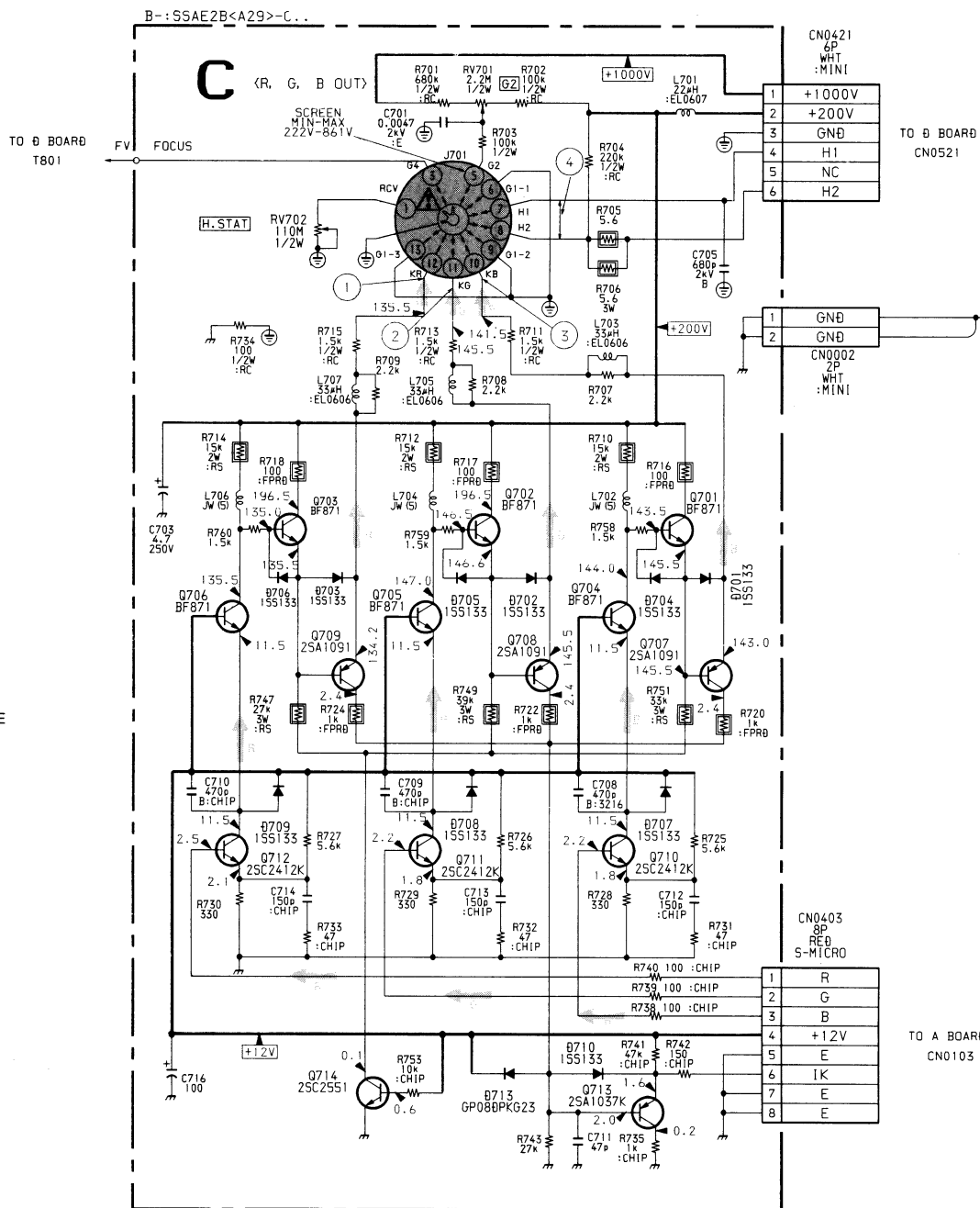
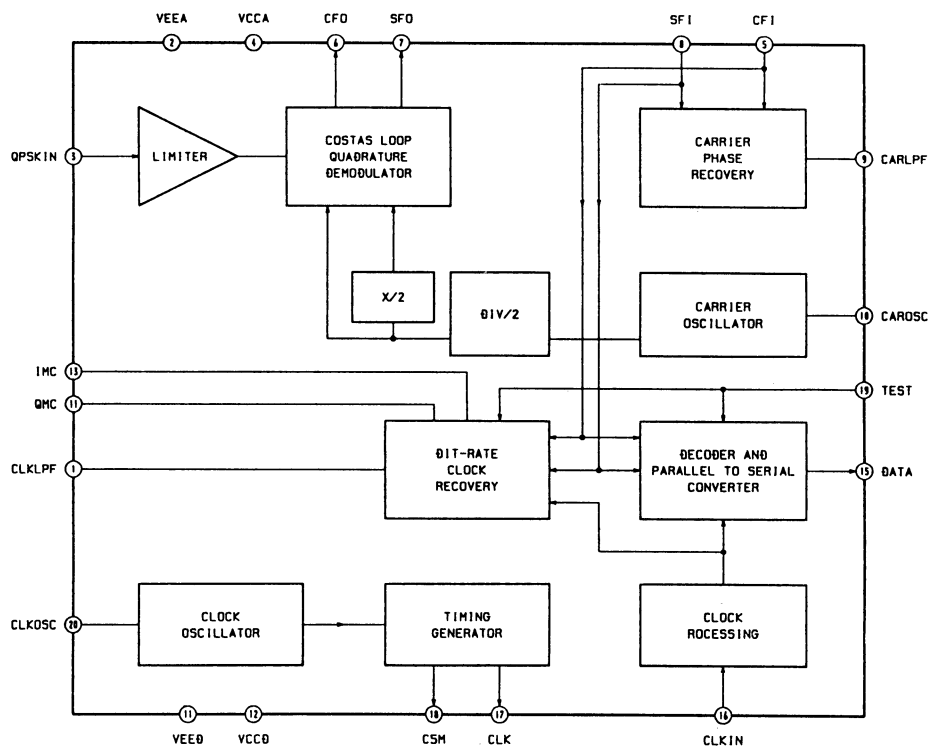
A3 BOARD * MARK

Model	KV-A2943E	KV-A2942U
BP1101	5.850MHz	6.552MHz
C1159	-	47P
CF1101	-	6.0MHz
CF1102	5.5MHz	-
JR1101	0 : CHIP	-
L1105	-	15MMh
X1102	11.700MHz	13.104MHz

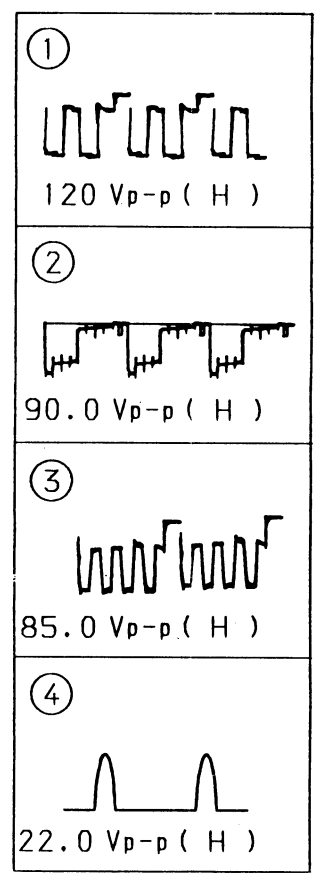
A3 BOARD IC3201 M69032P



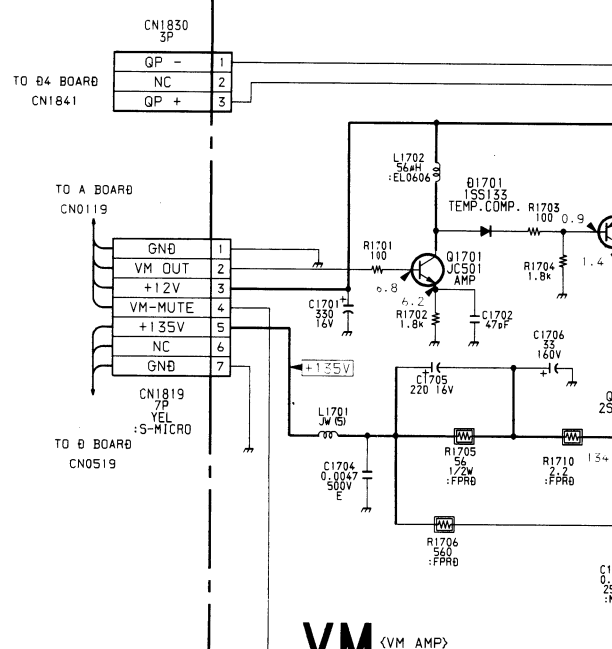
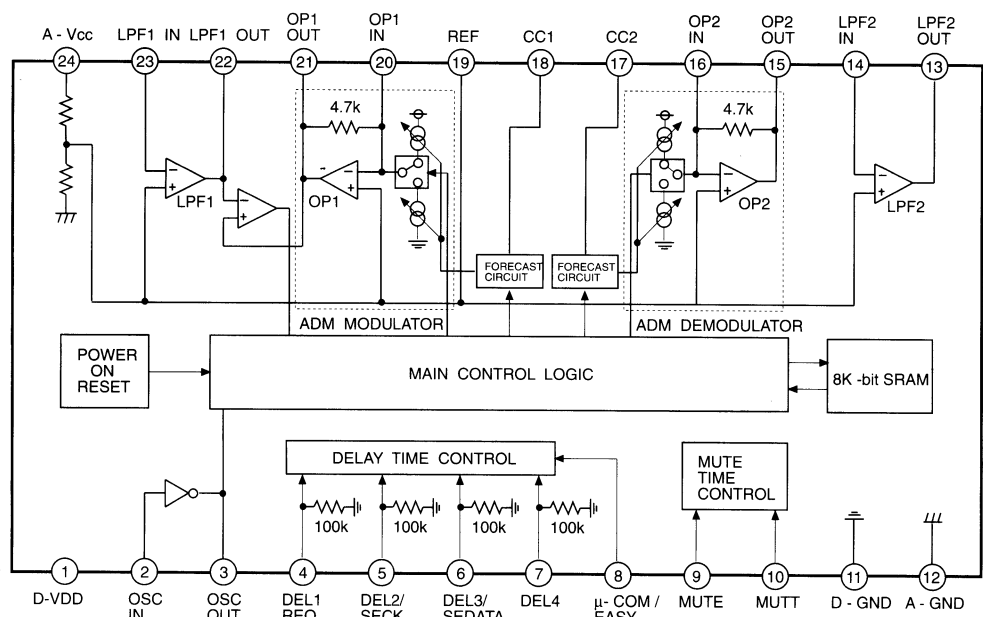
A3 BOARD IC1101 TDA8732



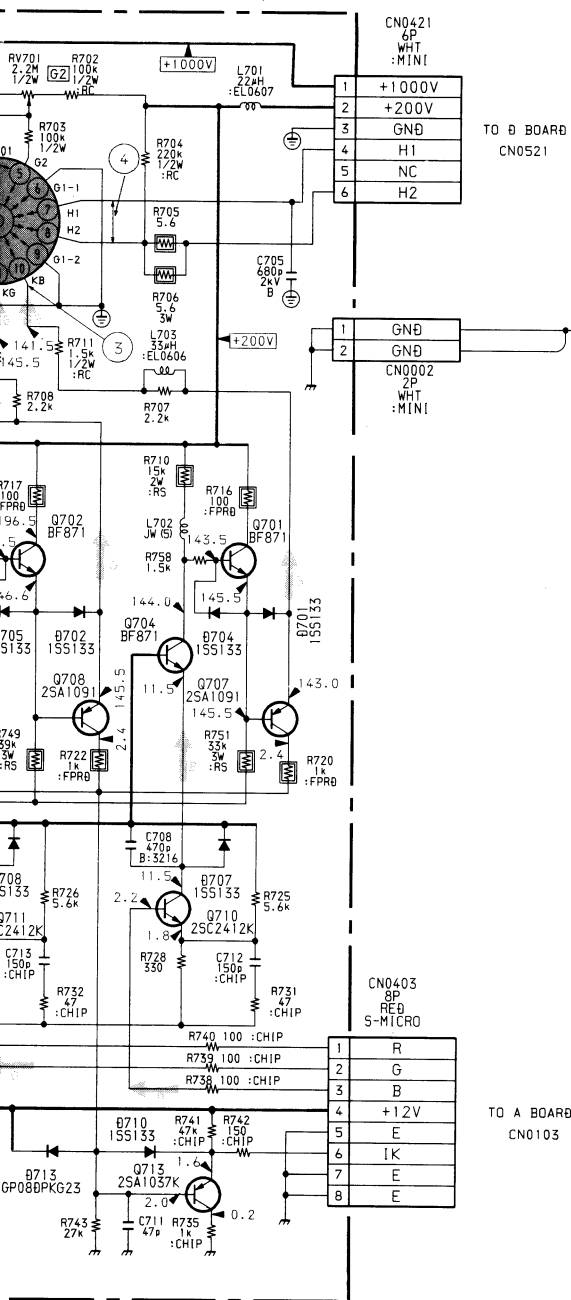
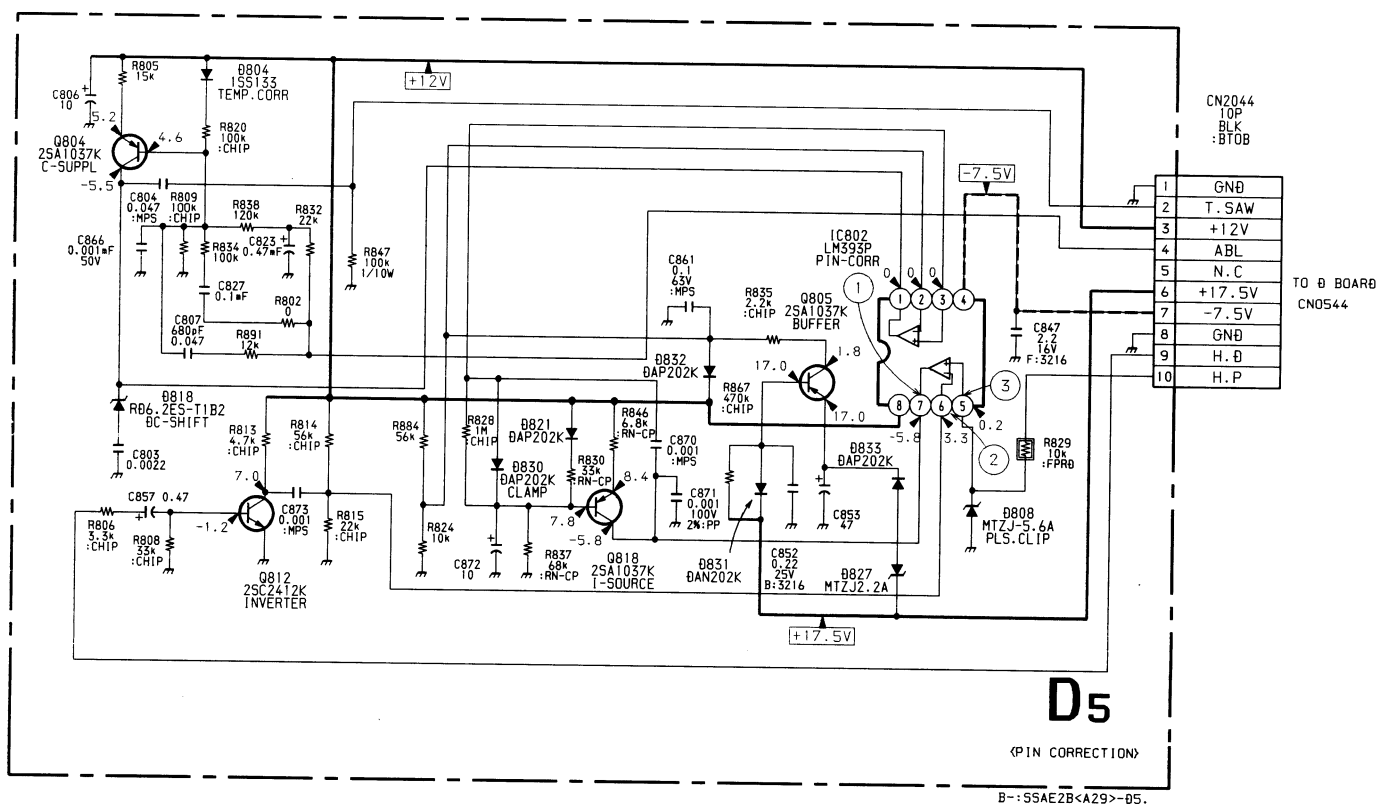
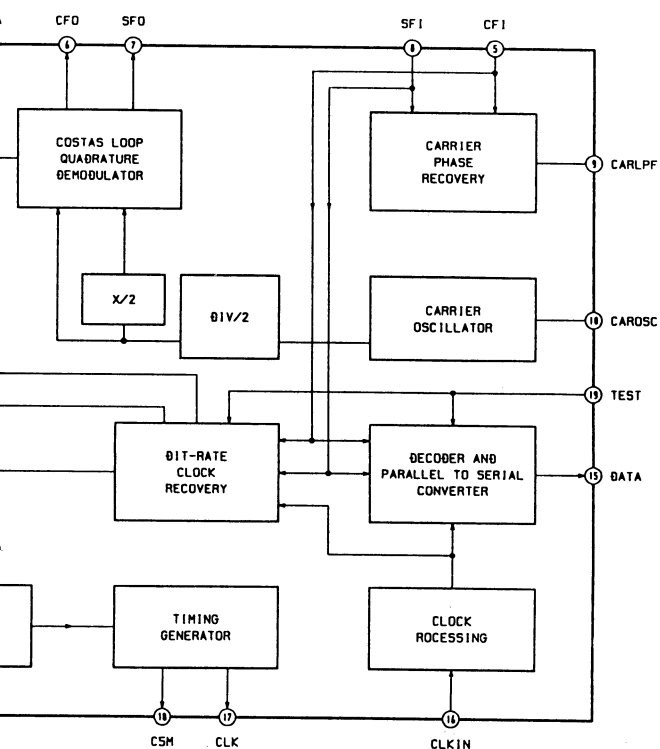
WAVEFORMS C BOARD



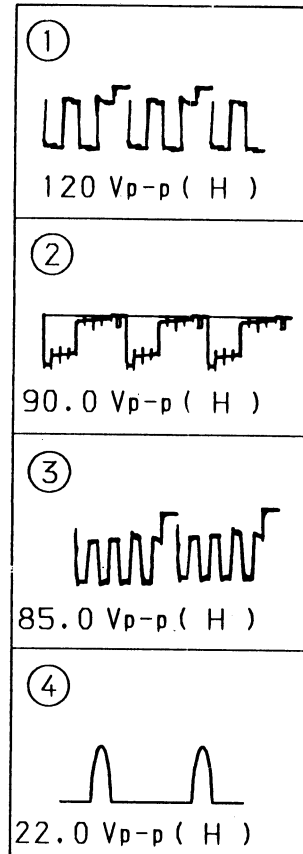
A3 BOARD IC3206 M50198P



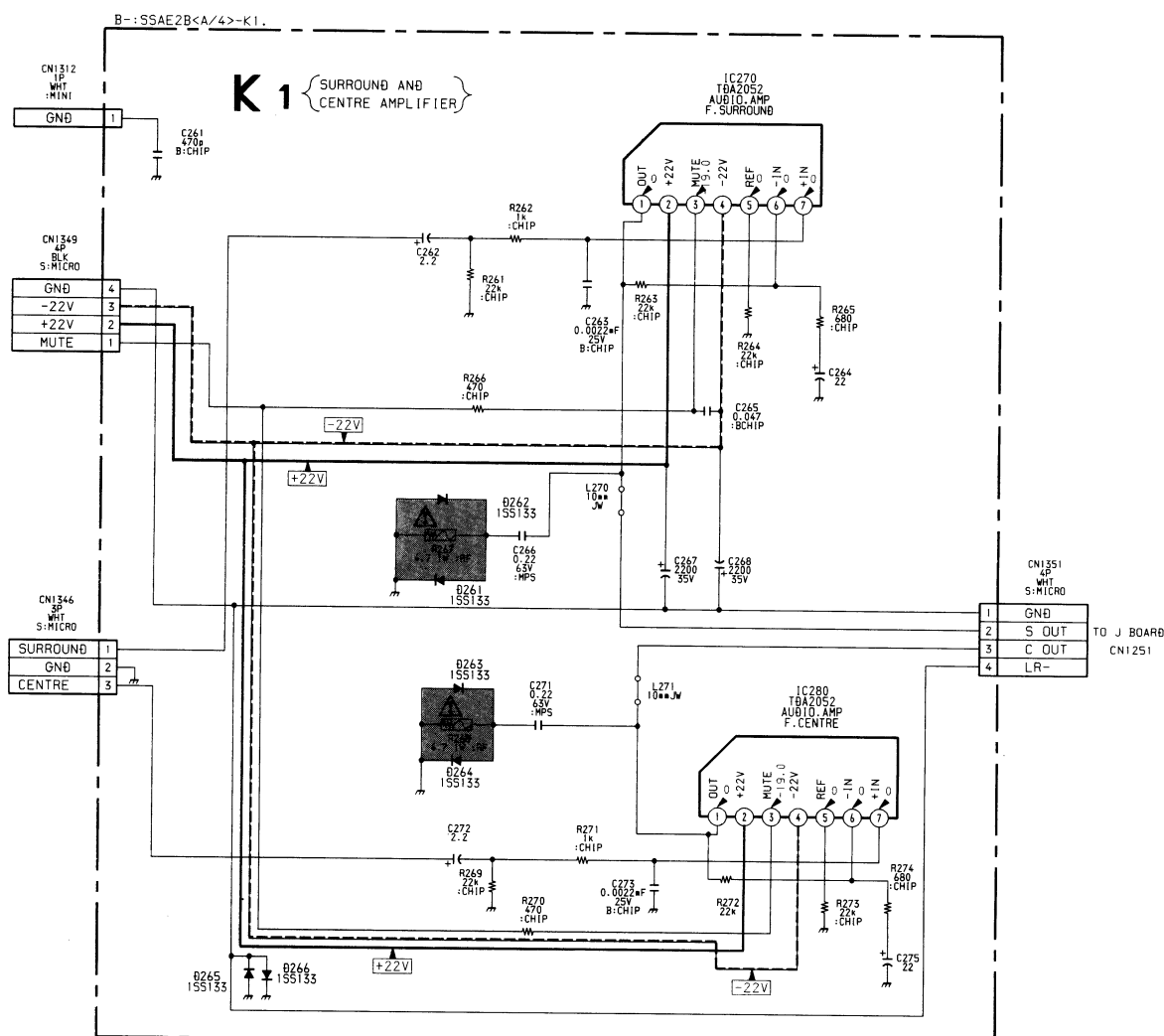
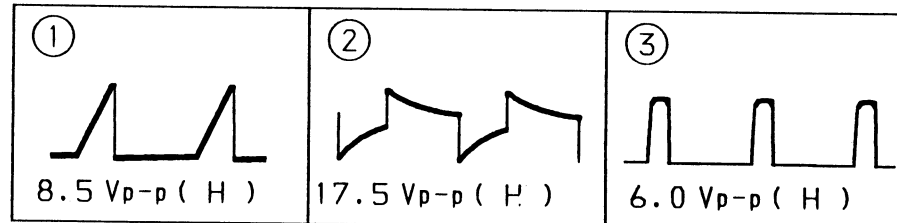
101 TDA8732



WAVEFORMS C BOARD



WAVEFORMS D5 BOARD



A3

NICAM DECODER
NICAM DEMODULATOR
GRAPHIC EQUALIZER, DOLBY

K1

SURROUND AND
CENTRE AMPLIFIER

D5

[PIN CORRECTION]

C

[R.G.B. OUT]

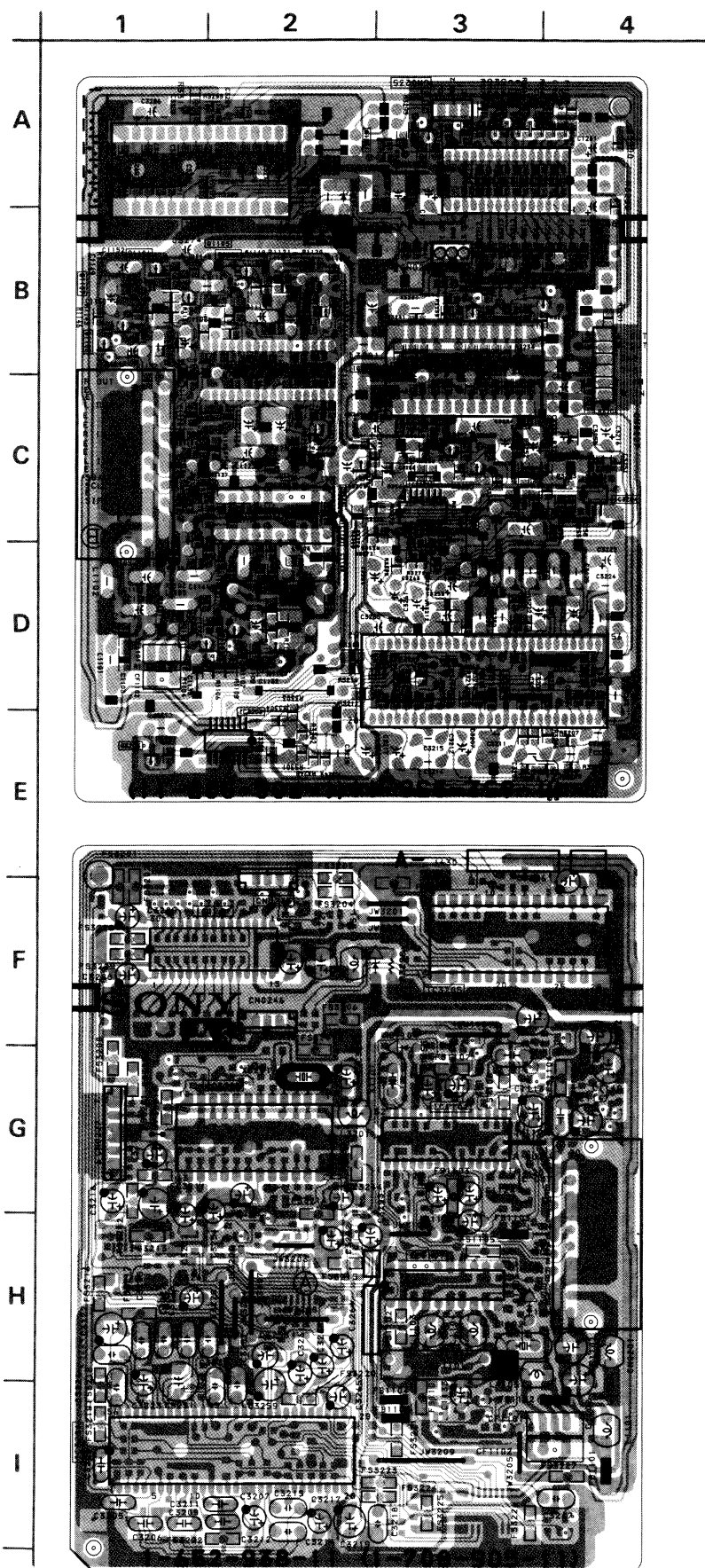
VM

[VM AMP]

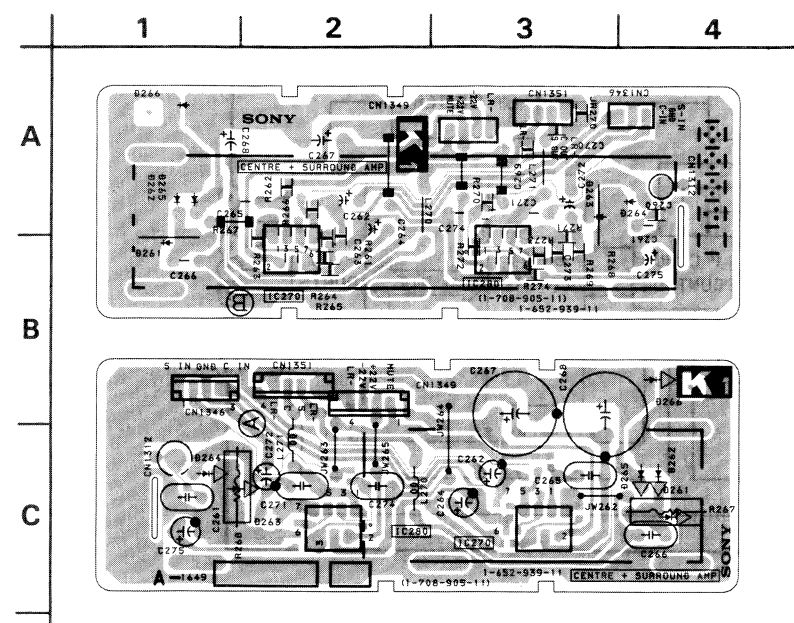
D4

[V - PIN Q P]

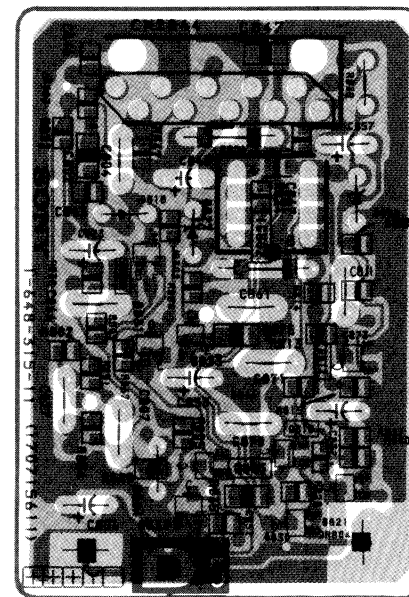
— A3 BOARD —



— K1 BOARD —



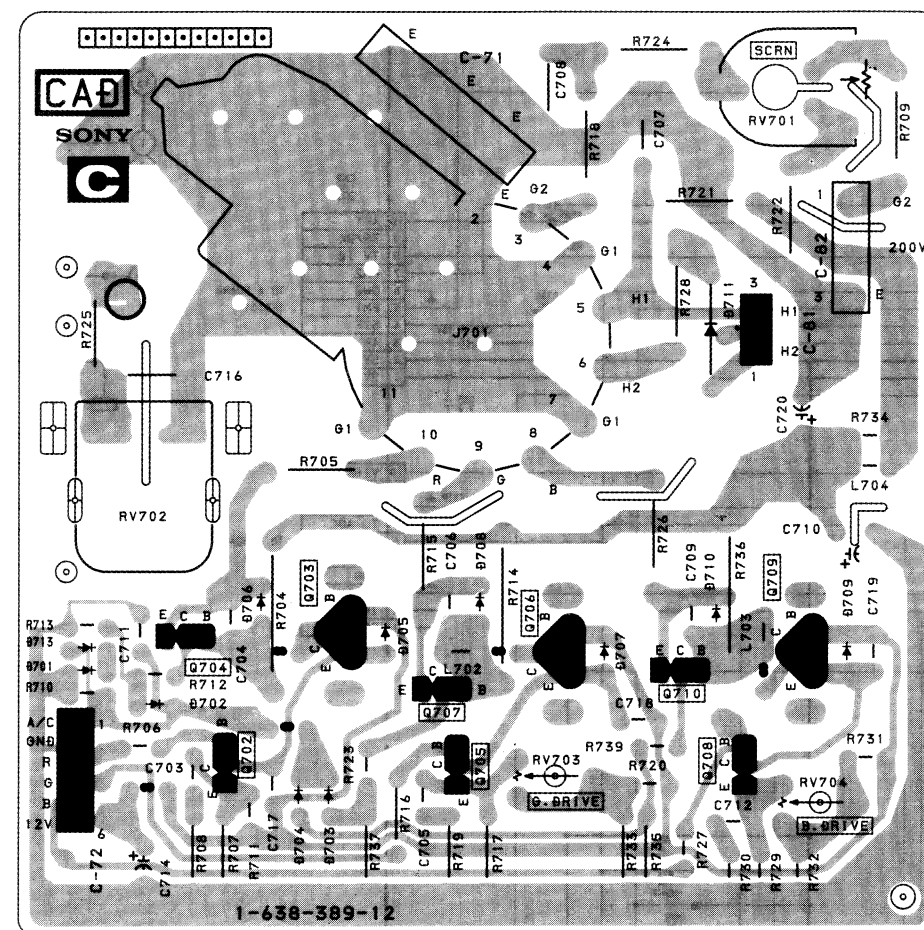
— D5 BOARD —



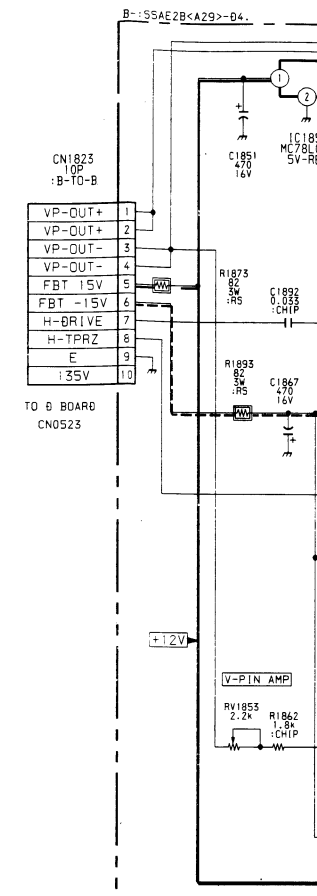
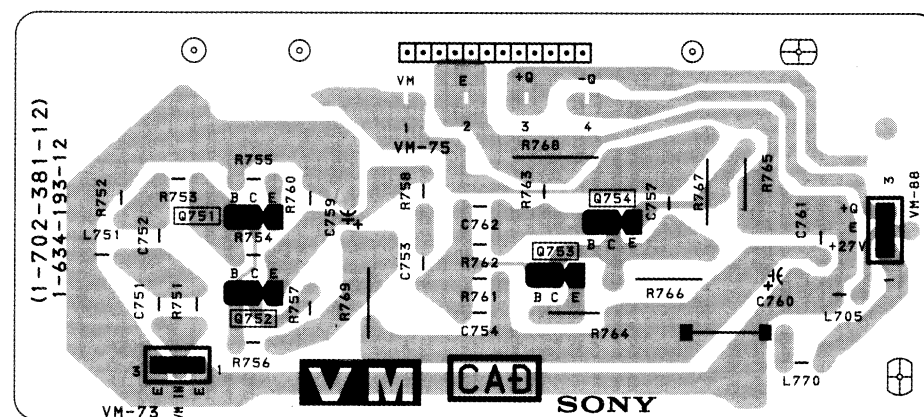
Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

— C BOARD —



— VM BOARD —



CORRECTION □

C

[R.G.B. OUT]

VM

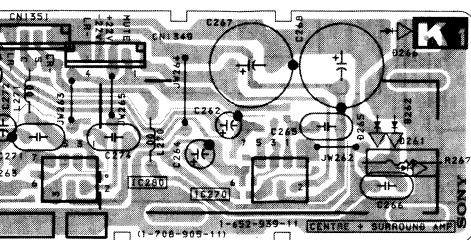
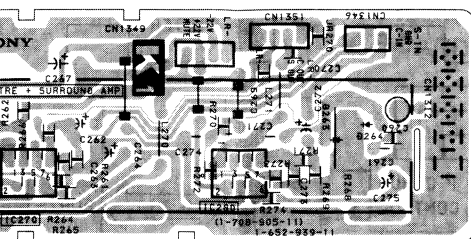
[VM AMP]

D4

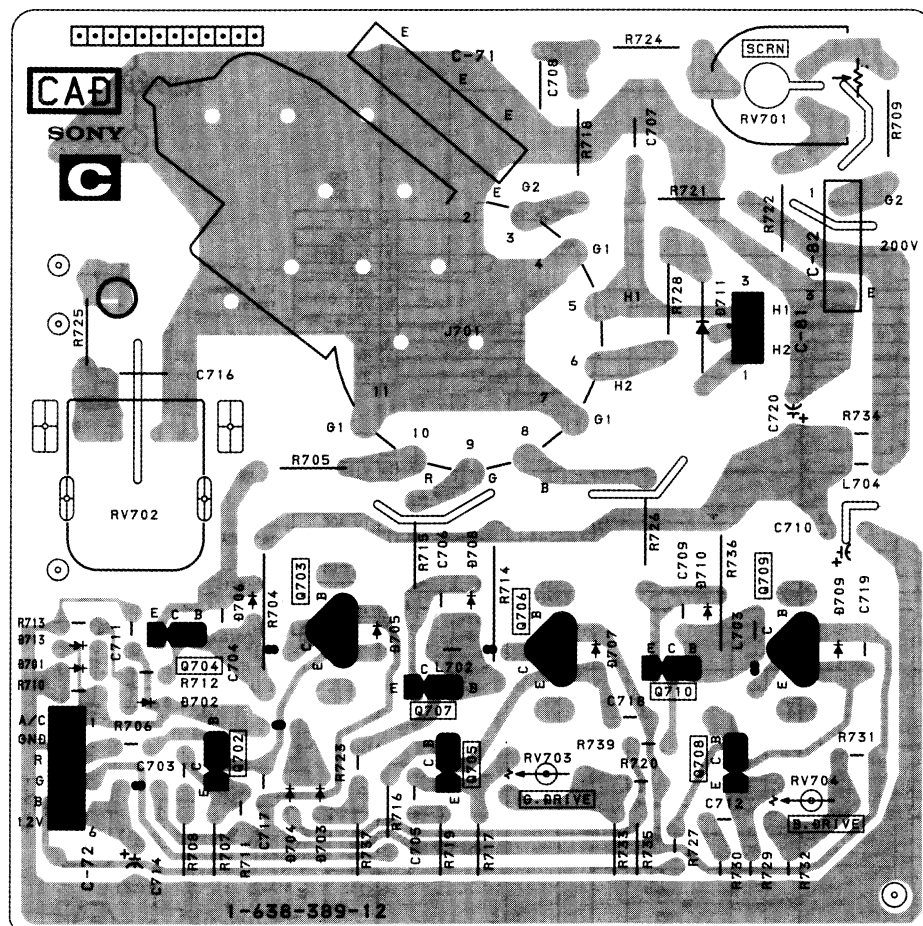
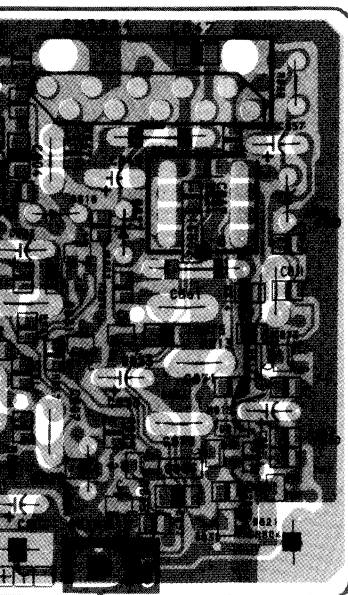
[V - PIN Q P]

- C BOARD -

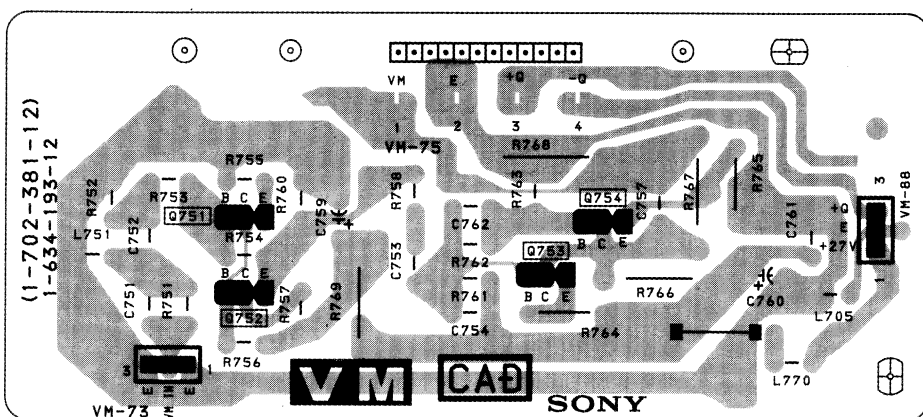
2 | 3 | 4




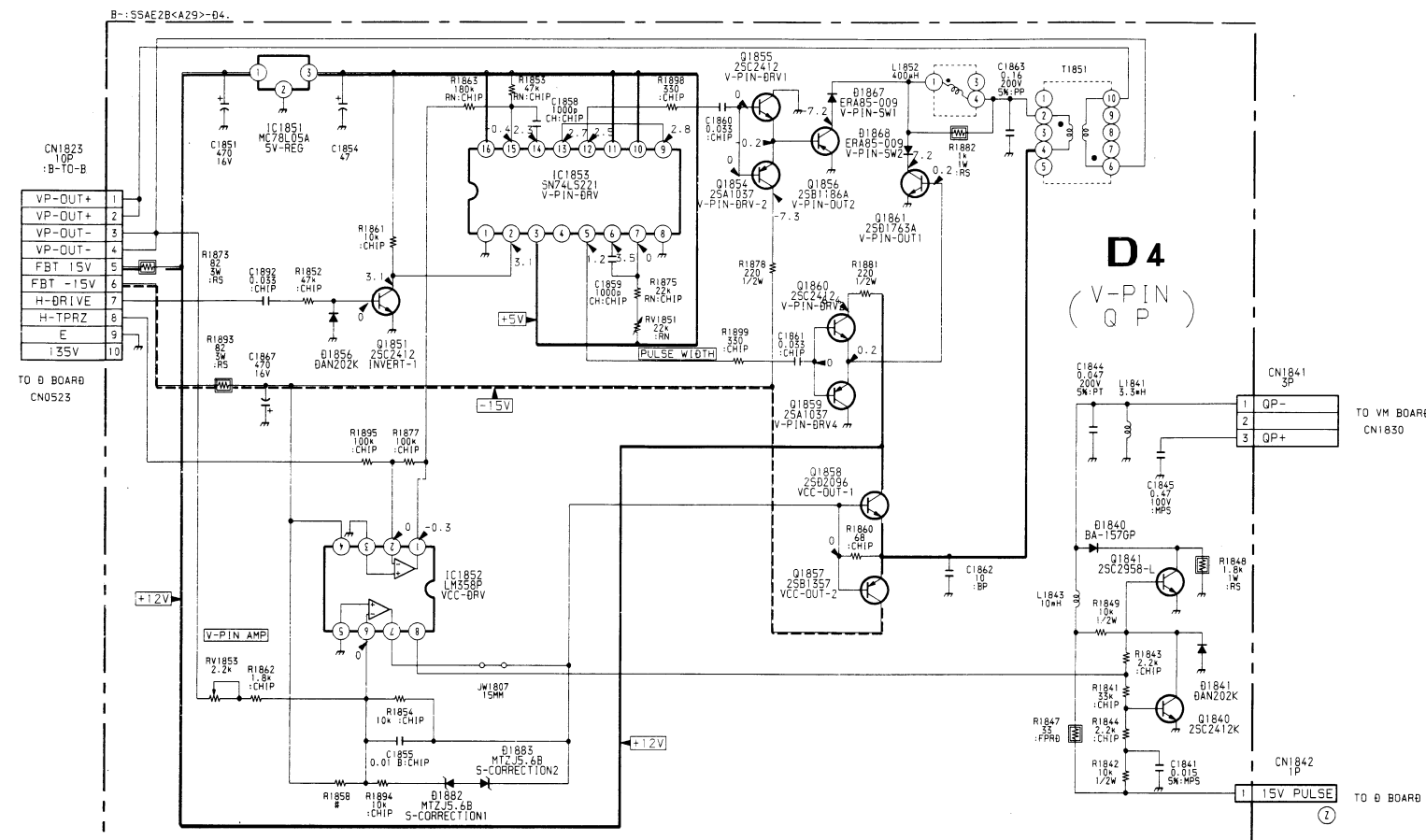
5 BOARD —



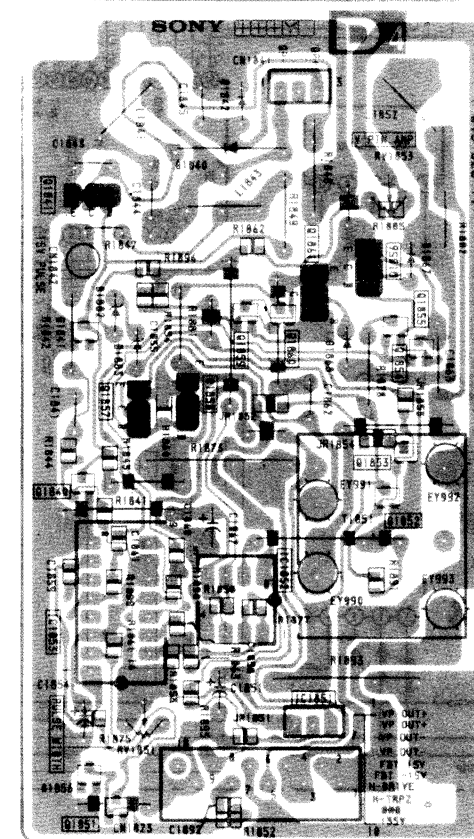
– VM BOARD –



 : Pattern from the side which enables seeing.
 : Pattern of the rear side.



– D4 BOARD –



IFH389F (French Model)

A

B

C

D

E

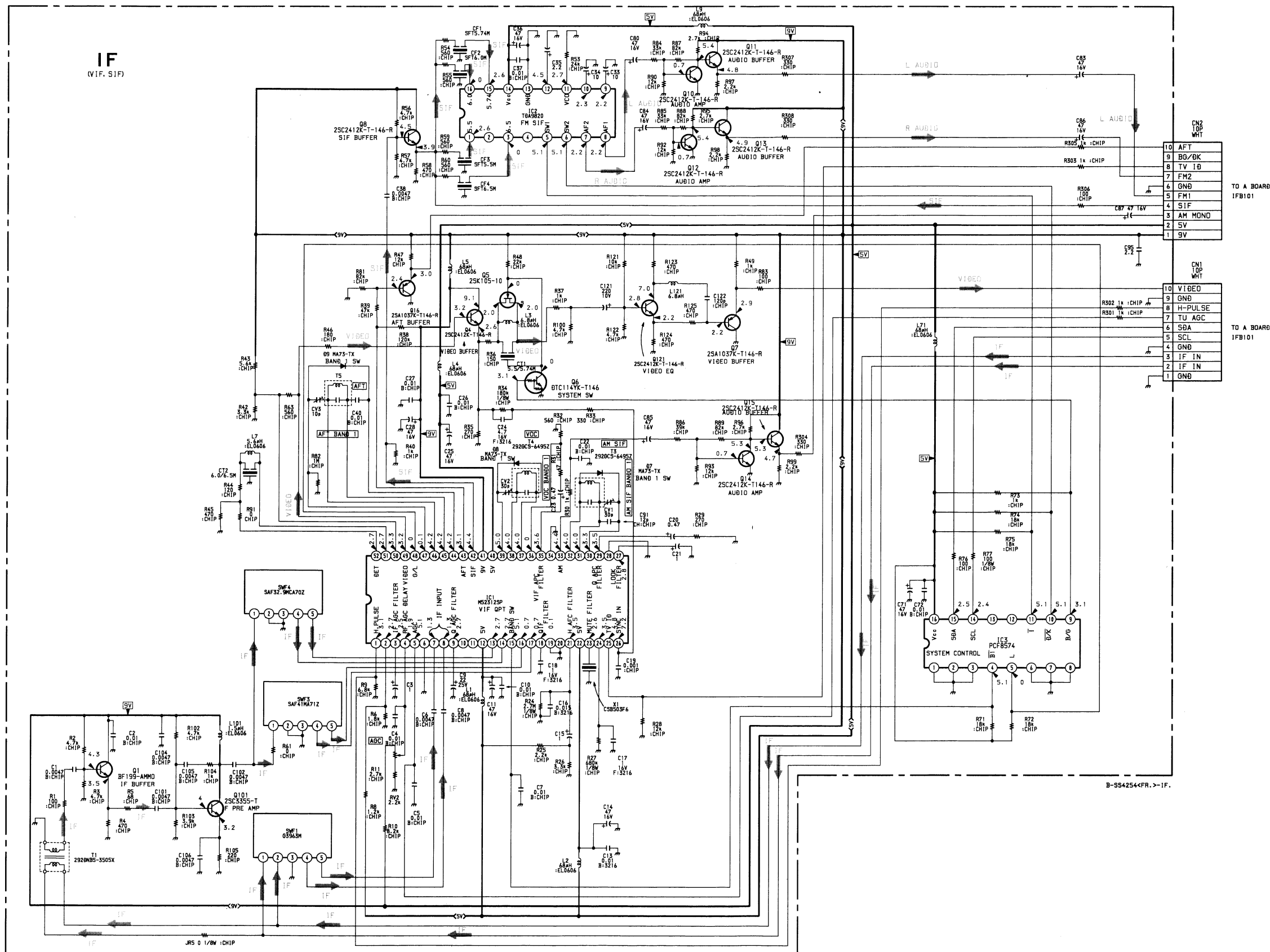
F

G

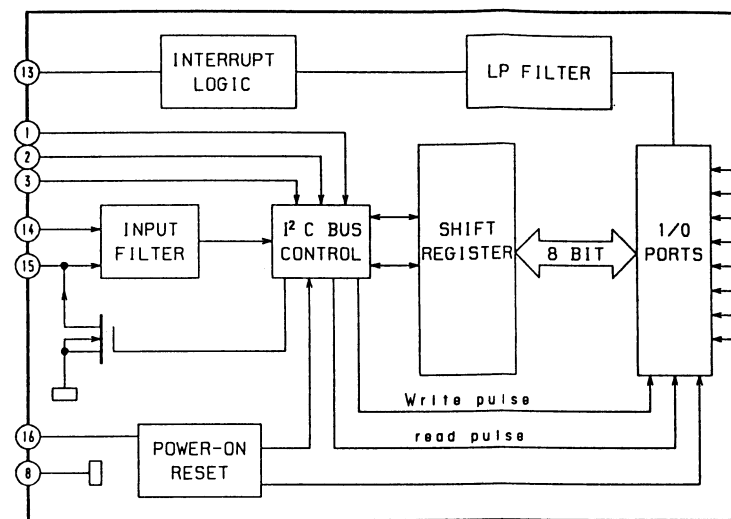
H

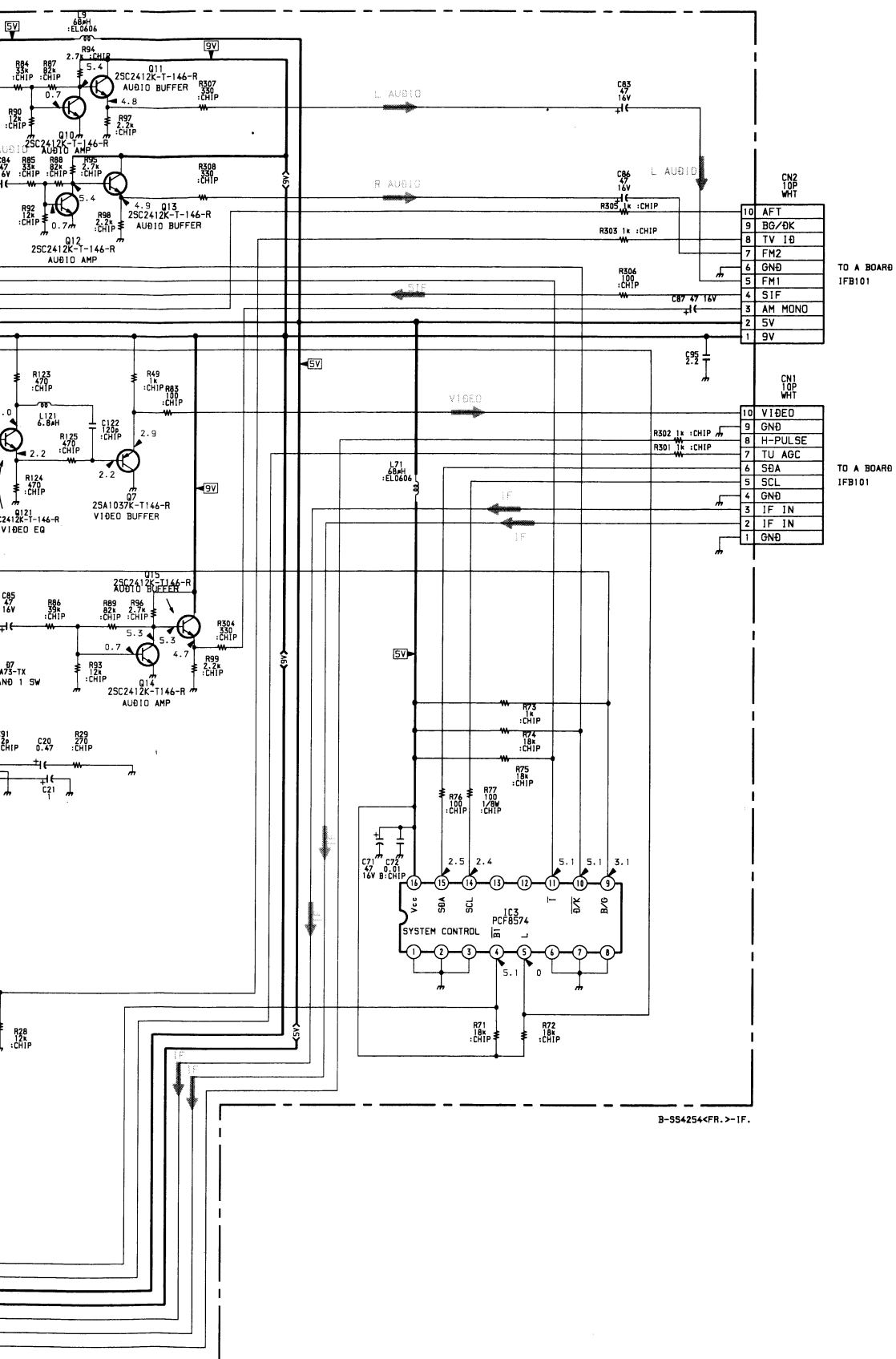
I

J

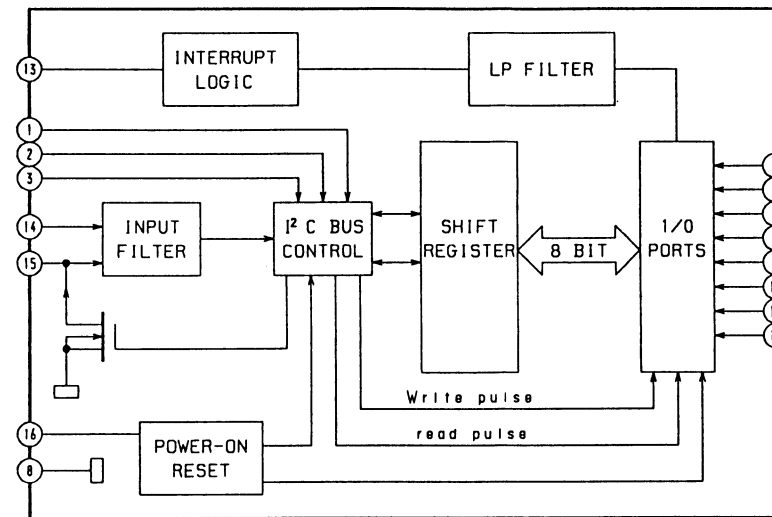


IF BOARD IC3 PC8574 (French Model)



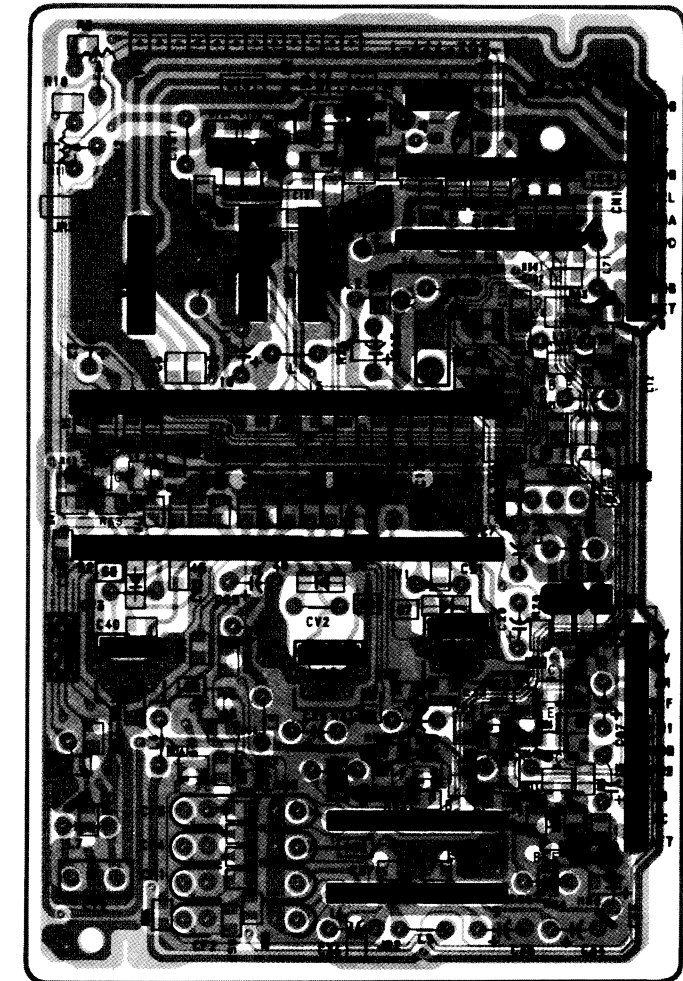


IF BOARD IC3 PC8574 (French Model)



IF [VIF, SIF]

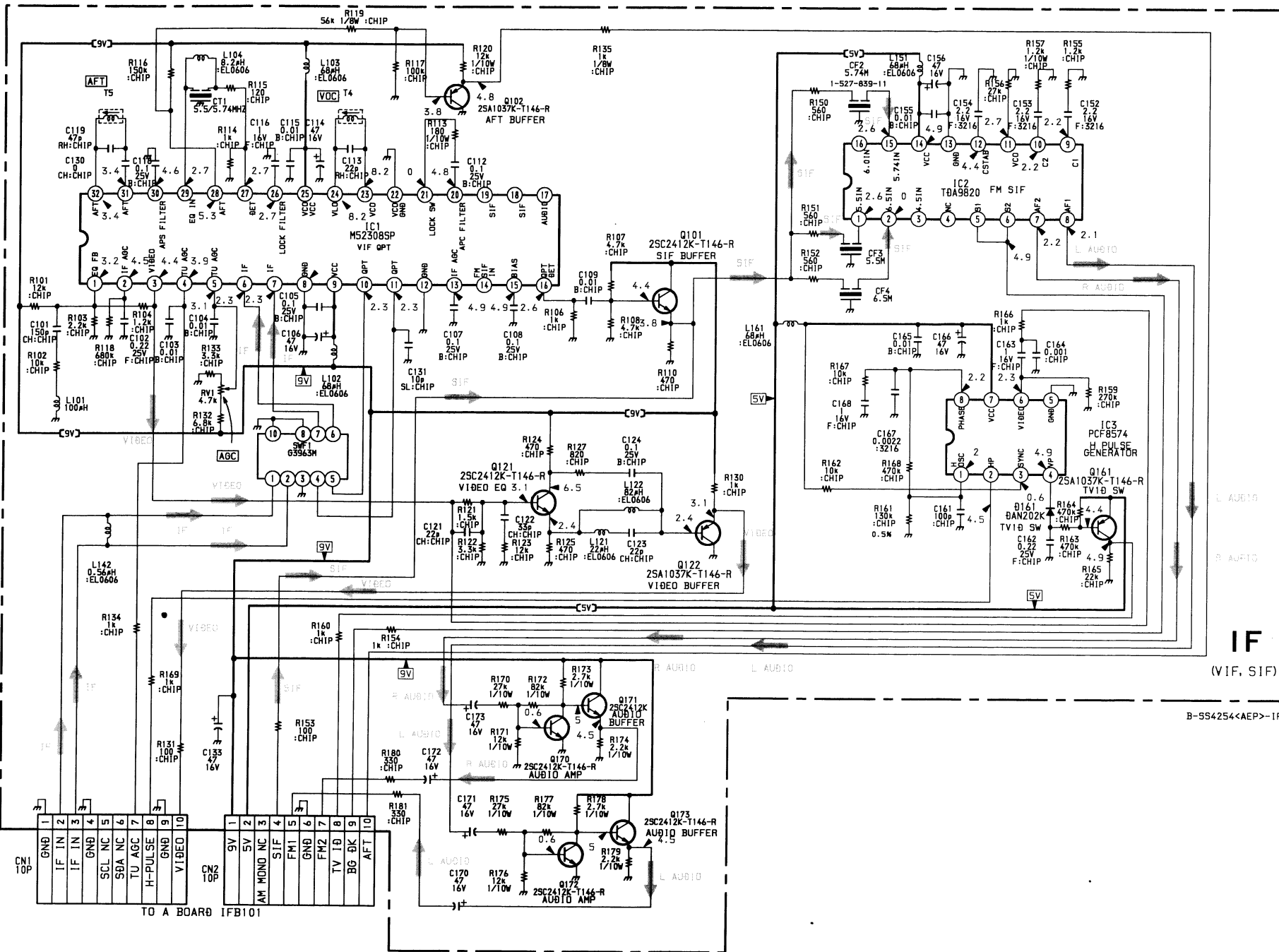
– IF BOARD – (French Model)



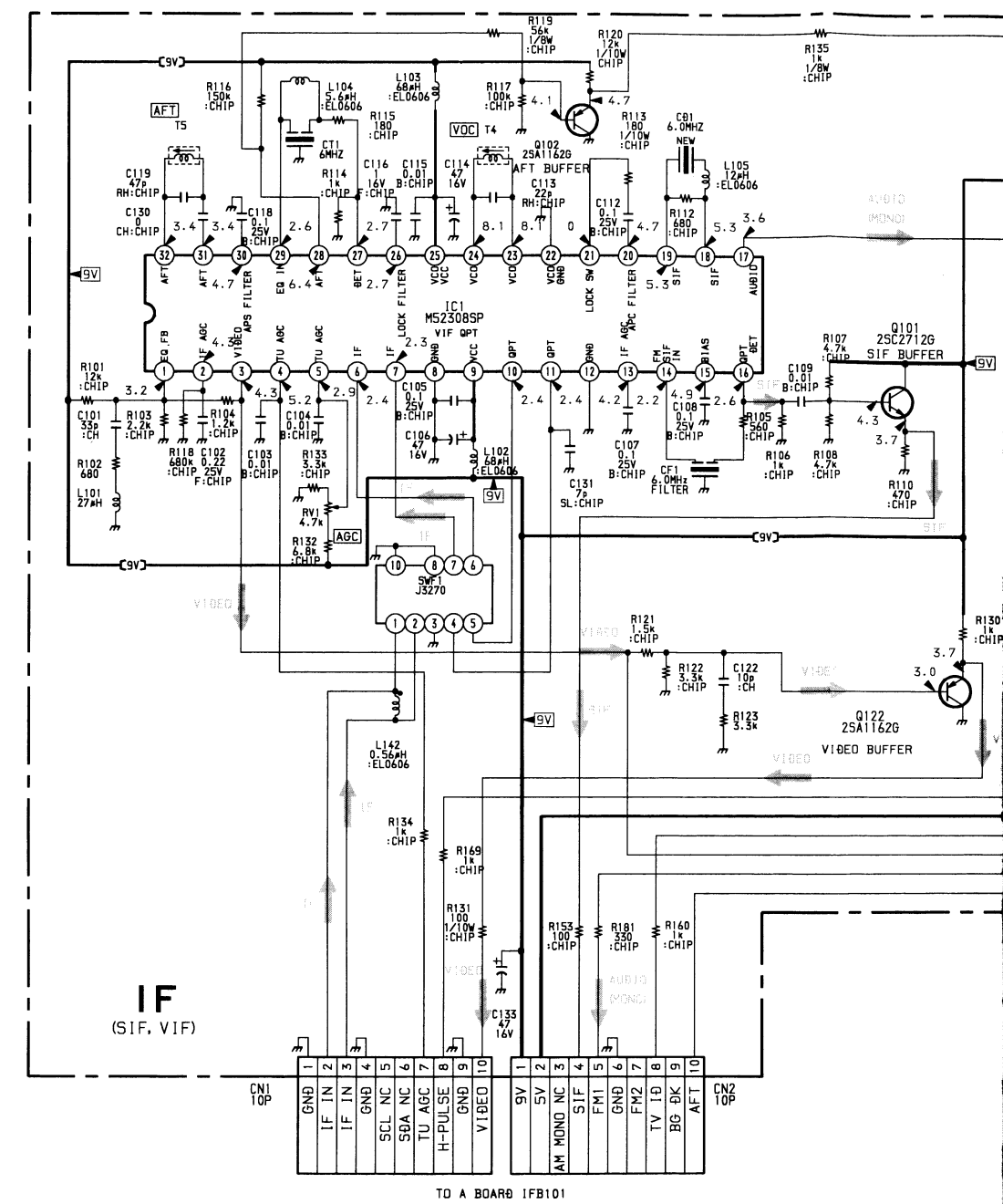
Note :

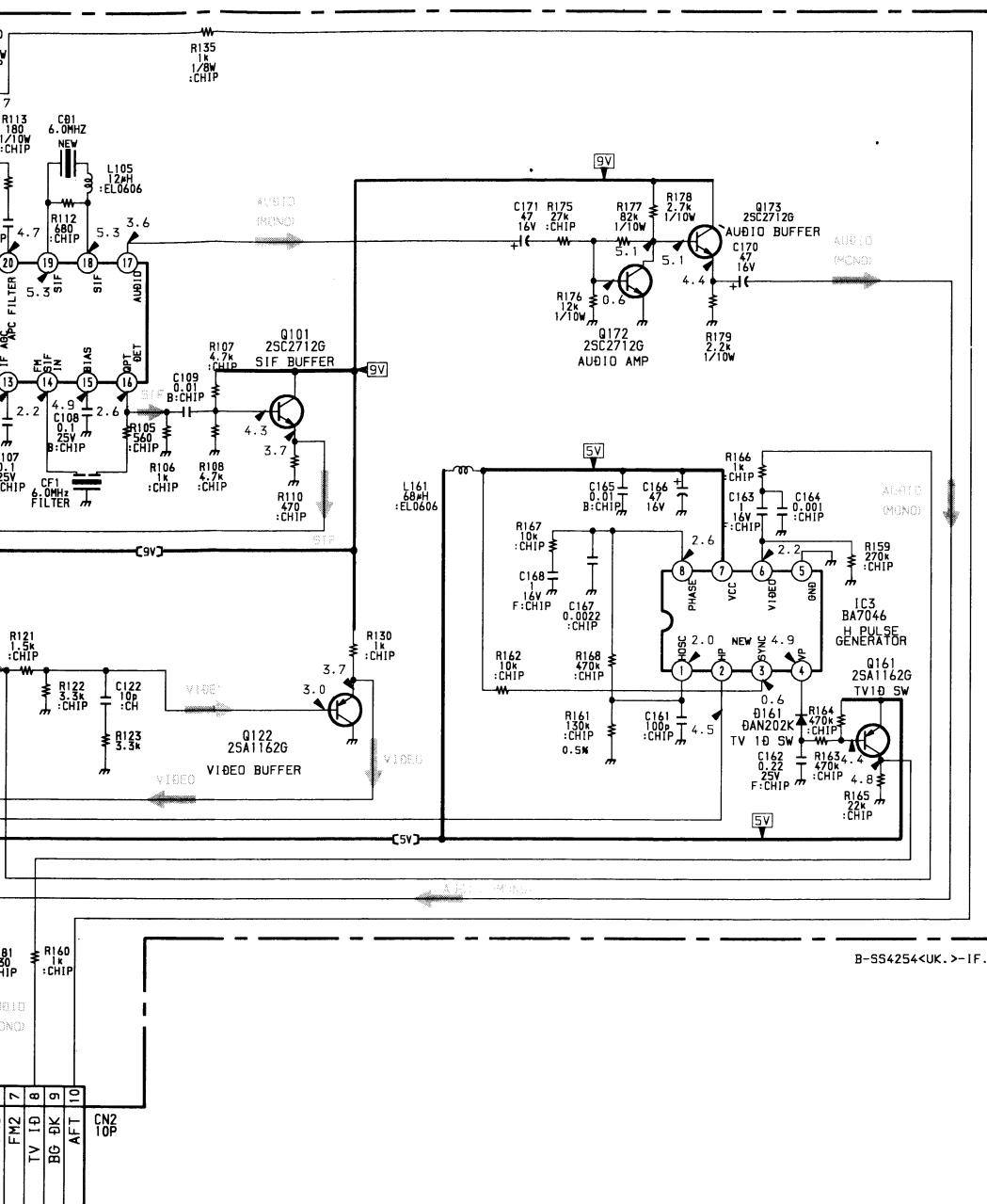
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

IFH389 (AEP, Italian, Spanish Model)

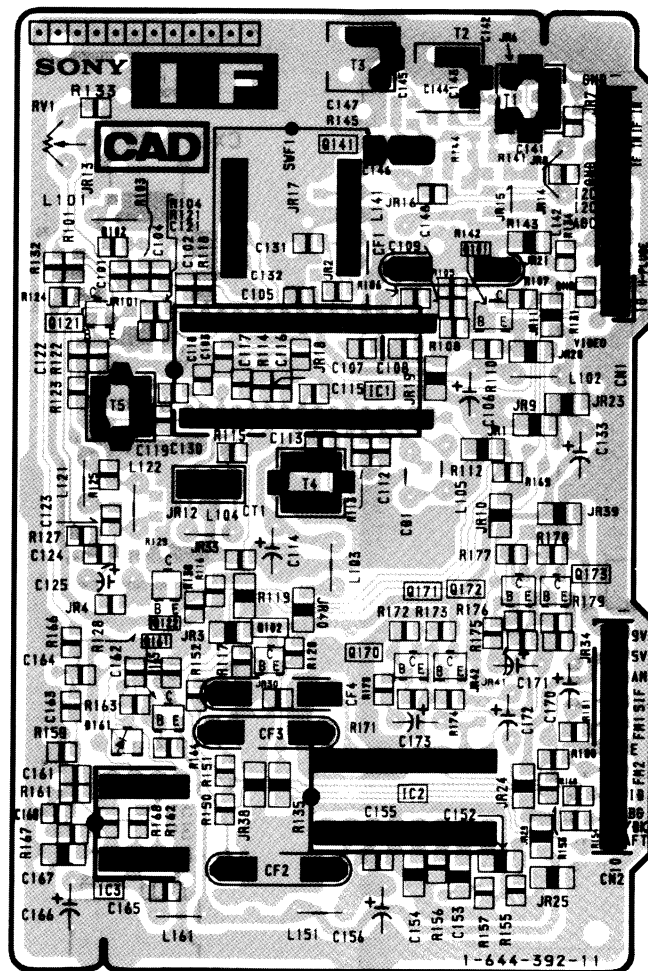


IF395 (UK MODEL)

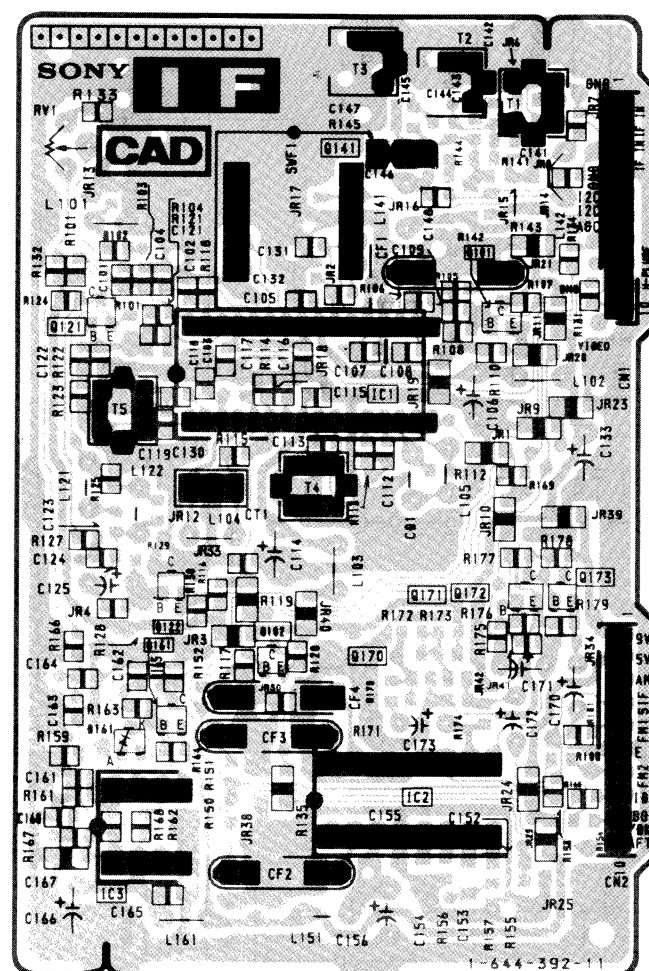




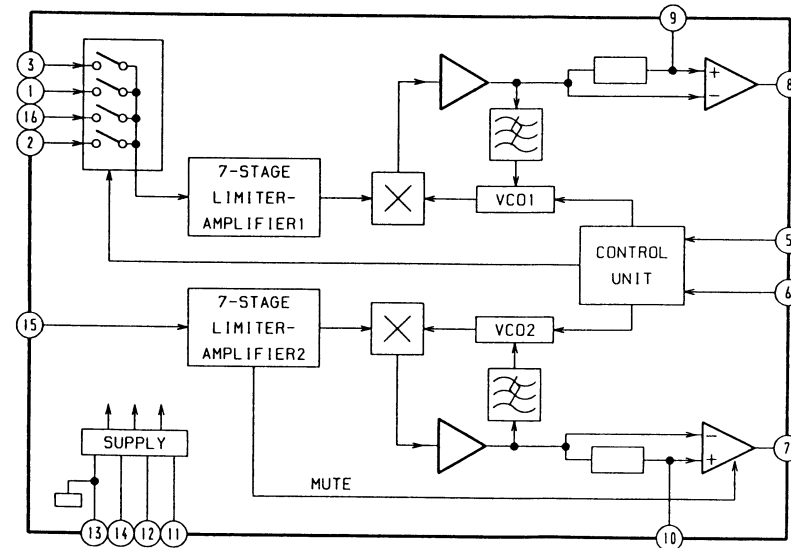
IF BOARD - (AEP, Italian, Spanish Model)



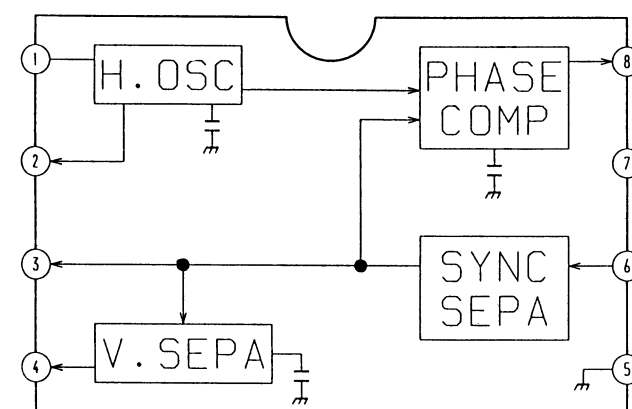
IF BOARD - (UK Model)



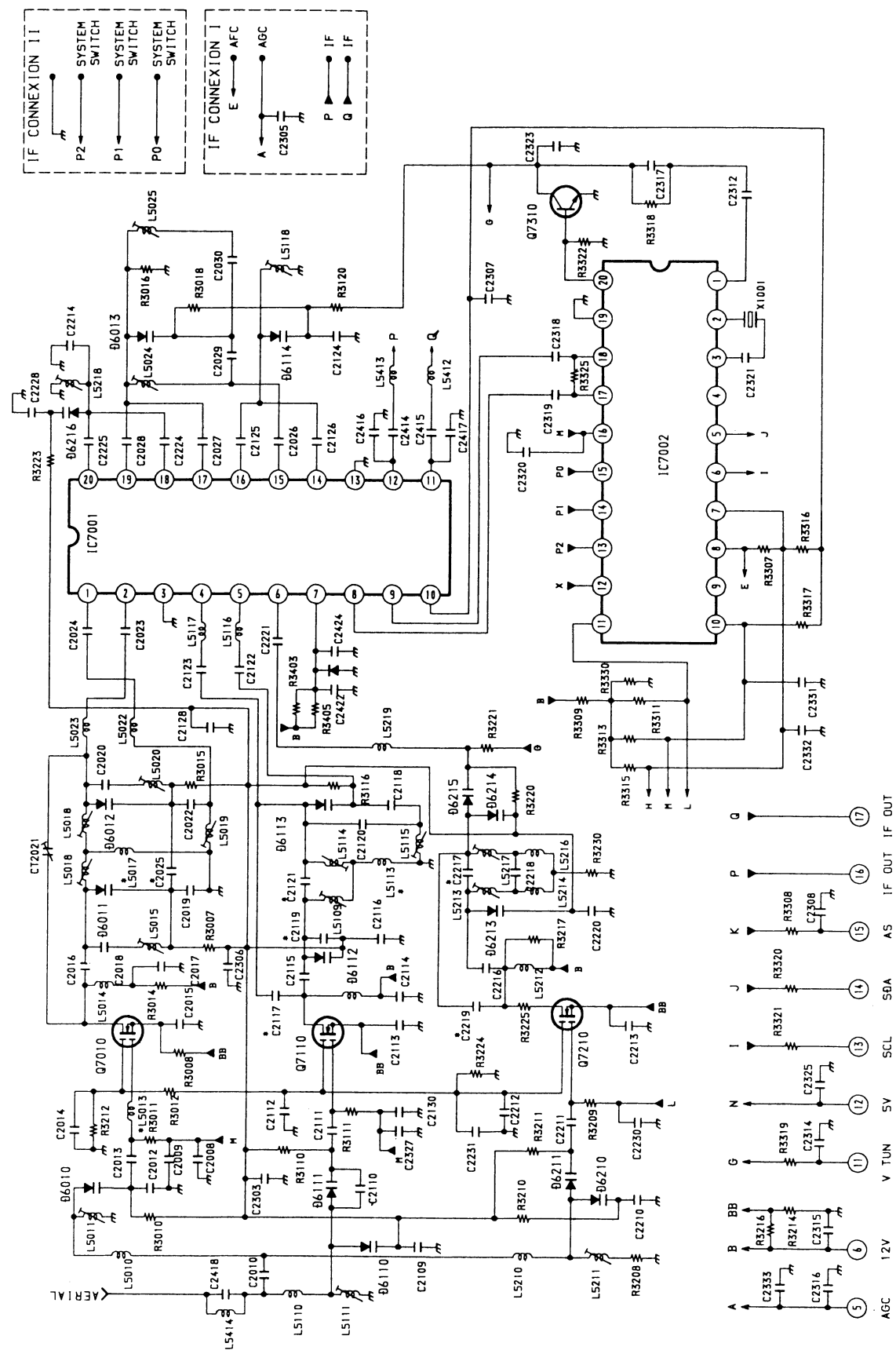
IF BOARD IC2 TDA9820 (AEP, Italian, Spanish Model)



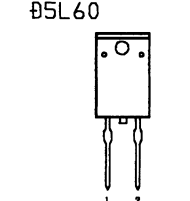
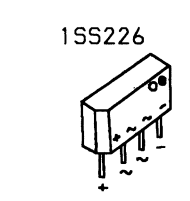
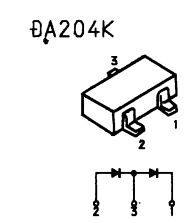
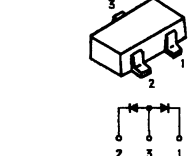
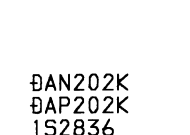
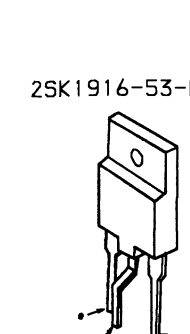
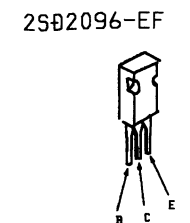
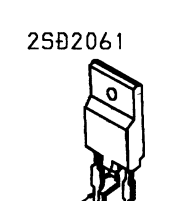
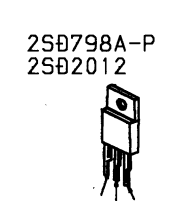
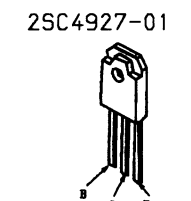
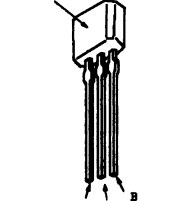
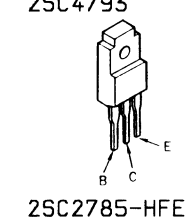
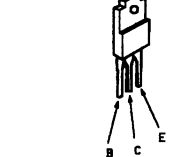
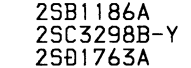
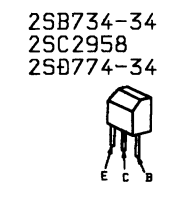
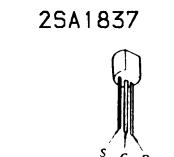
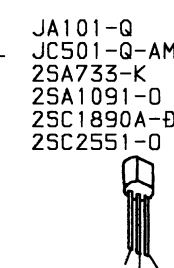
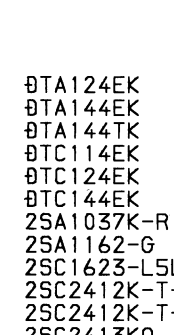
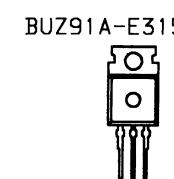
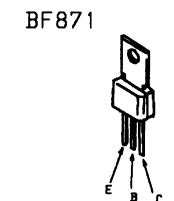
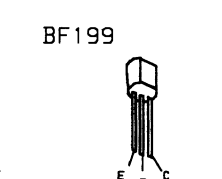
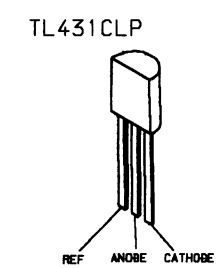
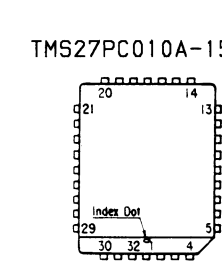
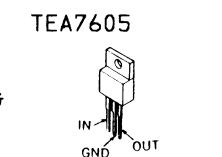
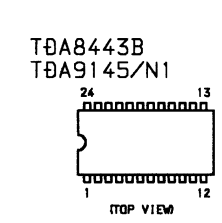
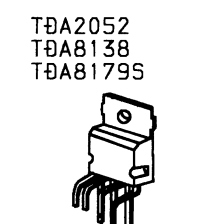
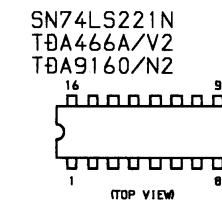
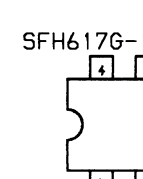
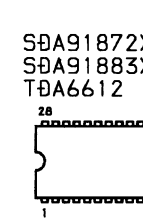
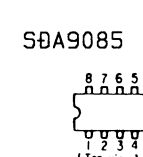
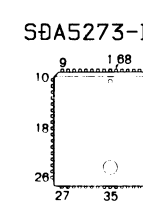
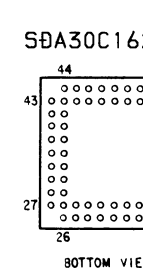
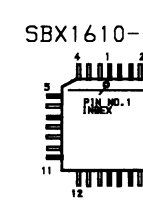
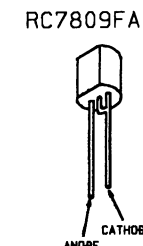
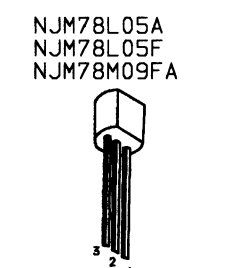
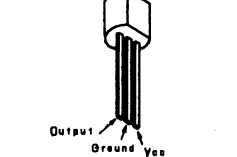
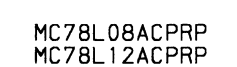
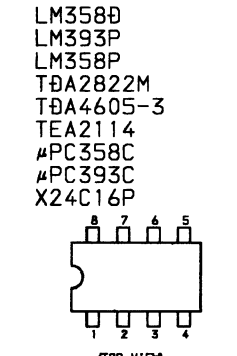
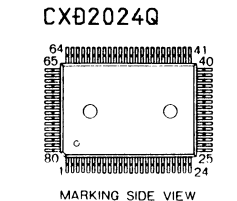
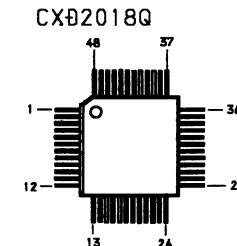
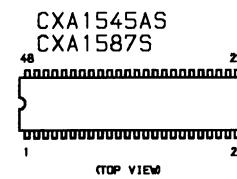
IF BOARD IC3 BA7046 (AEP, Italian, Spanish, UK Model)



5-4. SCHEMATIC DIAGRAM OF TUNER
A BOARD TU101 UV916H



5-5. SEMICONDUCTORS



2502096-EF



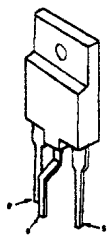
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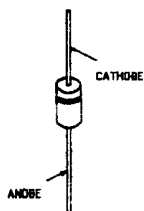
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25K1916-53-F50



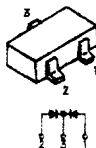
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ERC25-06S
RGP02-20EL-6394
RU30ALFS1
RU3AM



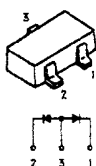
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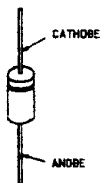
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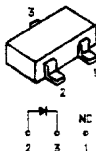
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1S2836



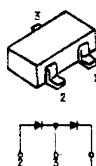
EL1Z
ERB44-06
GP080
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R2K-V1
1N4148A-T265



MA3030-H (TK)
MA3039H-TX
MA3047L-TX

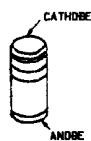


0A204K

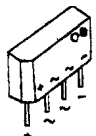


ERA85-009
MTZJ-T-77-12B
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MTZJ-T-77-15A
MTZJ-T-77-2.2A
MTZJ-T-77-3.6A
MTZJ-T-77-30B
MTZJ-T-77-33C
MTZJ-T-77-39C
MTZJ-T-77-5.6A
MTZJ-T-77-5.6B
MTZJ-T-77-7.5A
MTZJ-T-77-9.1
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R06.2ES-B2
R07.5ES-B2

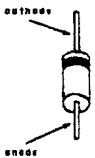
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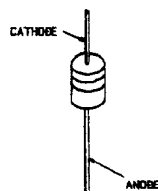
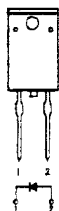
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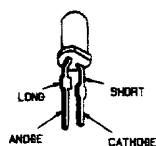
RGP02-17EL-6433



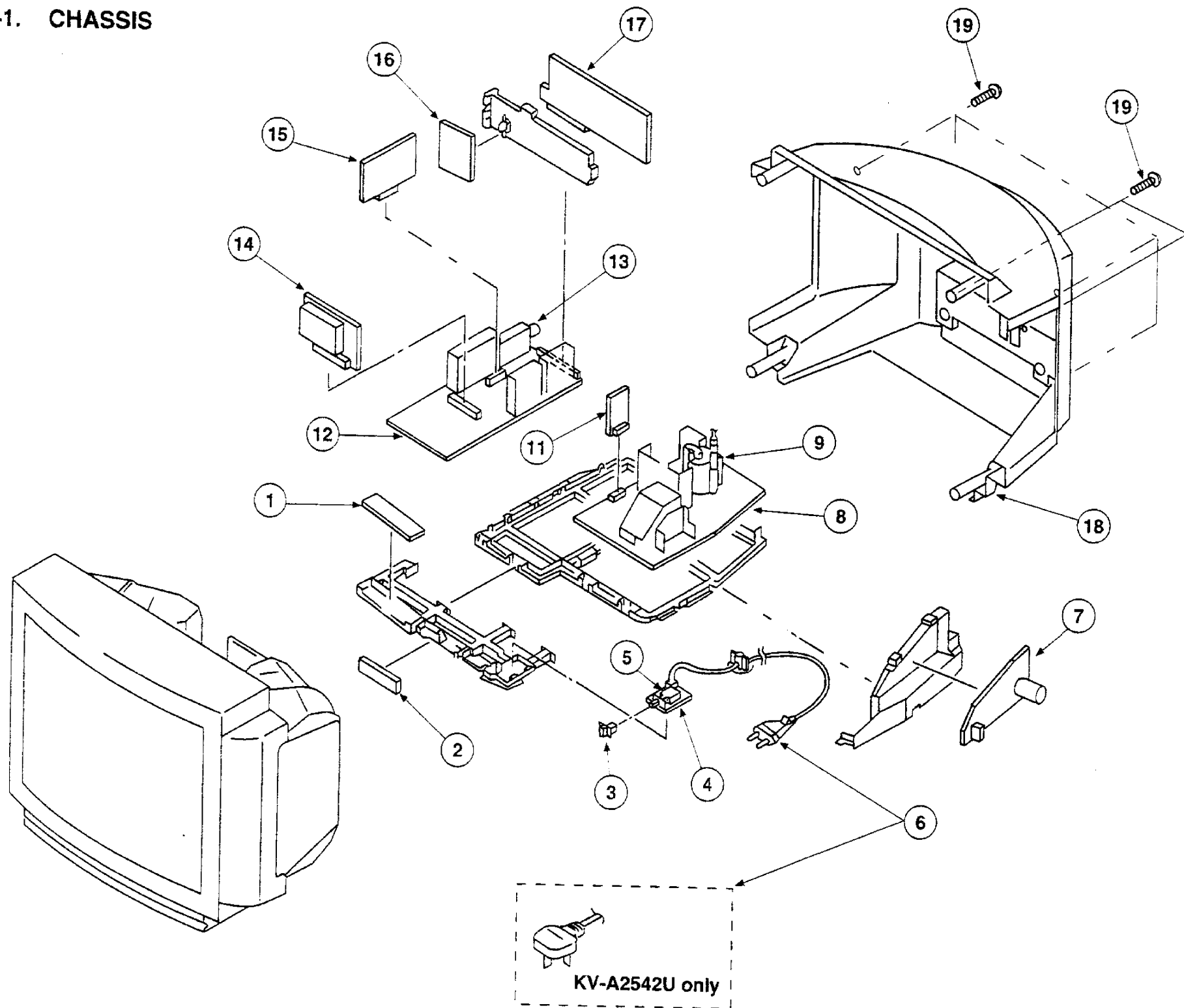
05L60




LB201VR



6-1. CHASSIS



6-2. PICTURE TUBE

The components identified by shading and marked  are critical for safety.
Replace only with the part number specified.

